131

REPORT OF THE NATIONAL DEVELOPMENT COMMITTEE 1946 PART II

[APPENDICES] PART II

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REPORT

OF THE

MALNAD DEVELOPMENT COMMITTEE

1946

PART II—APPENDICES

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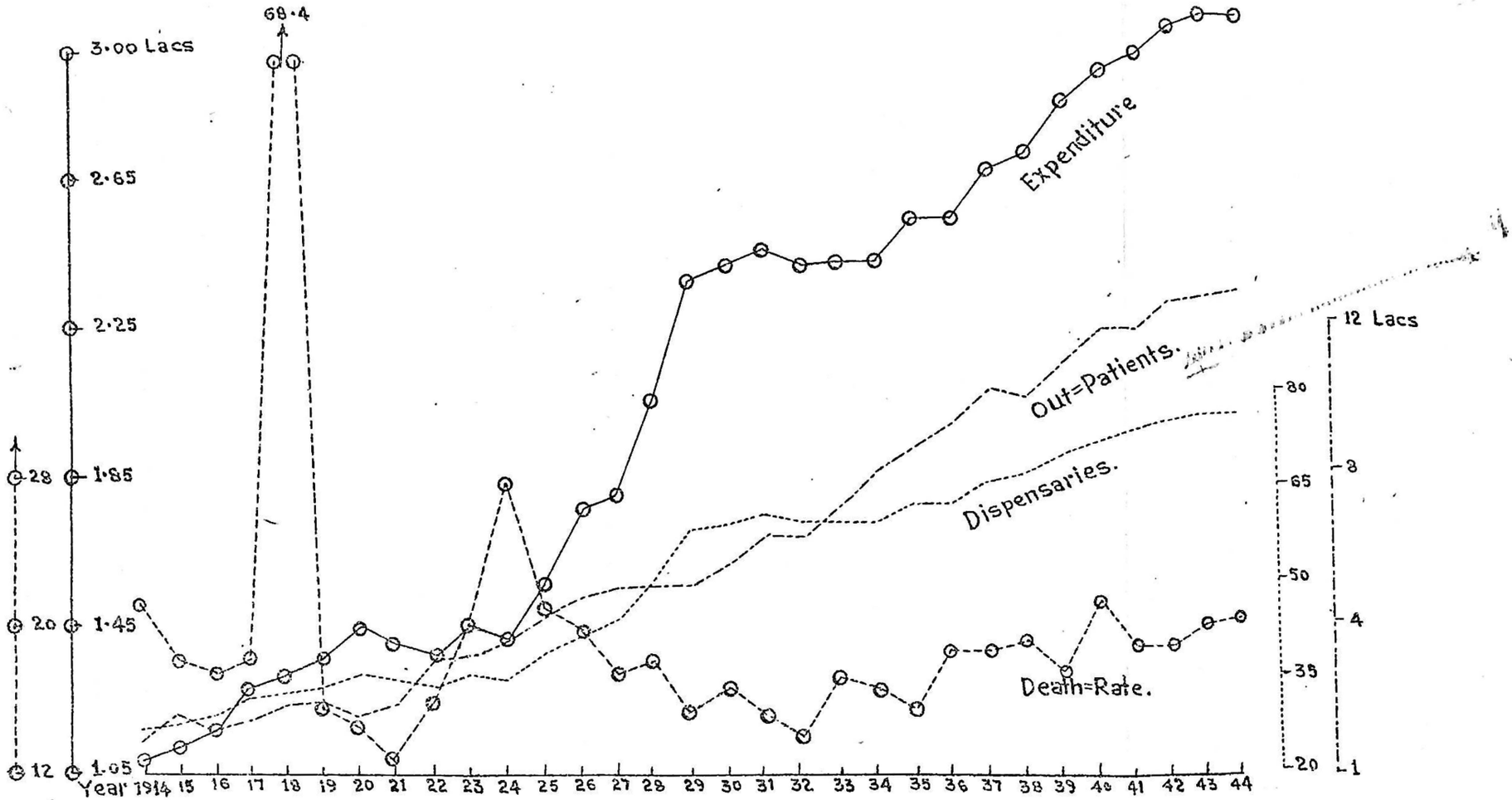
Graph showing on dispensaries :

(i) Death rate, number of Dispensaries, number of Out-patients treated and expenditure on Medical Institutions in the Malnad.



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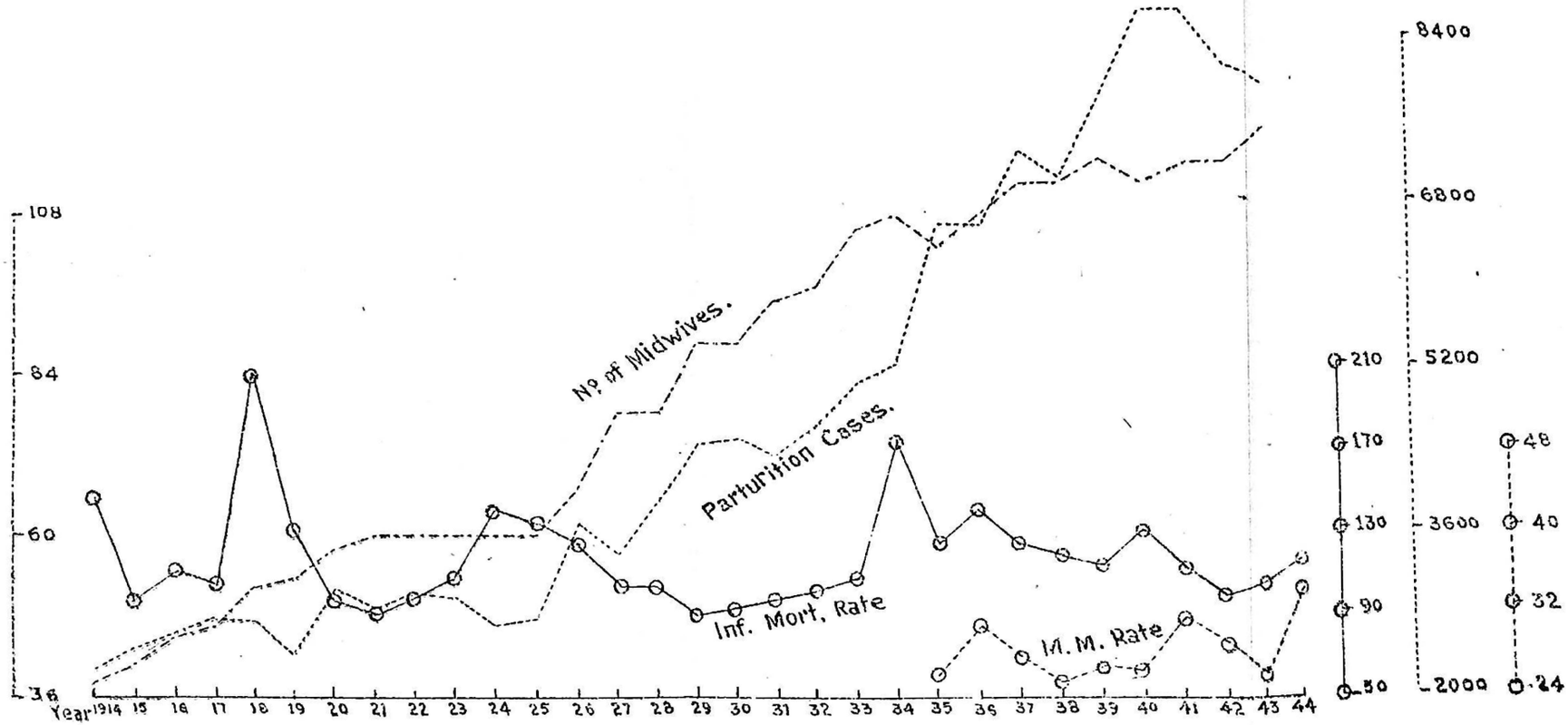

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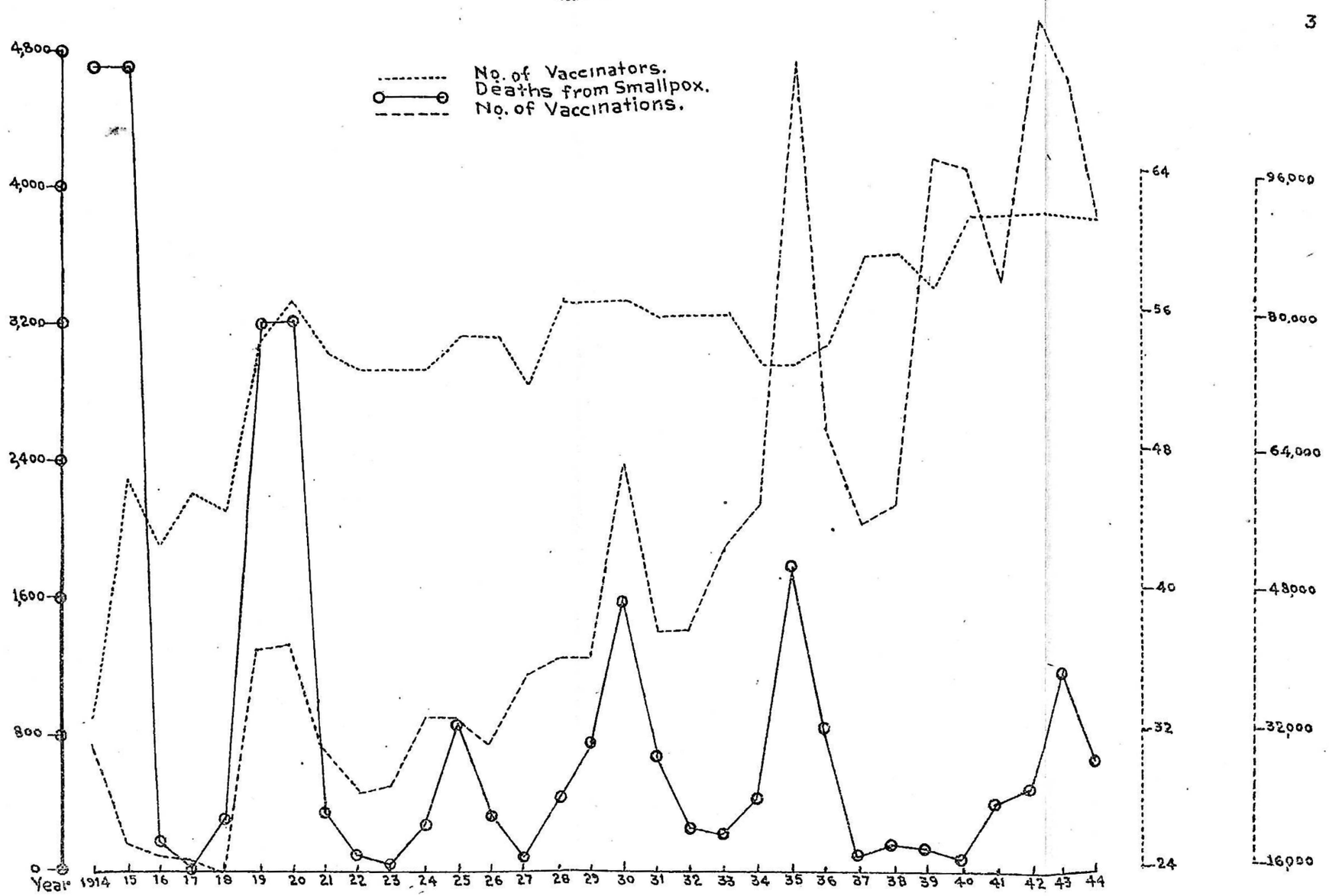
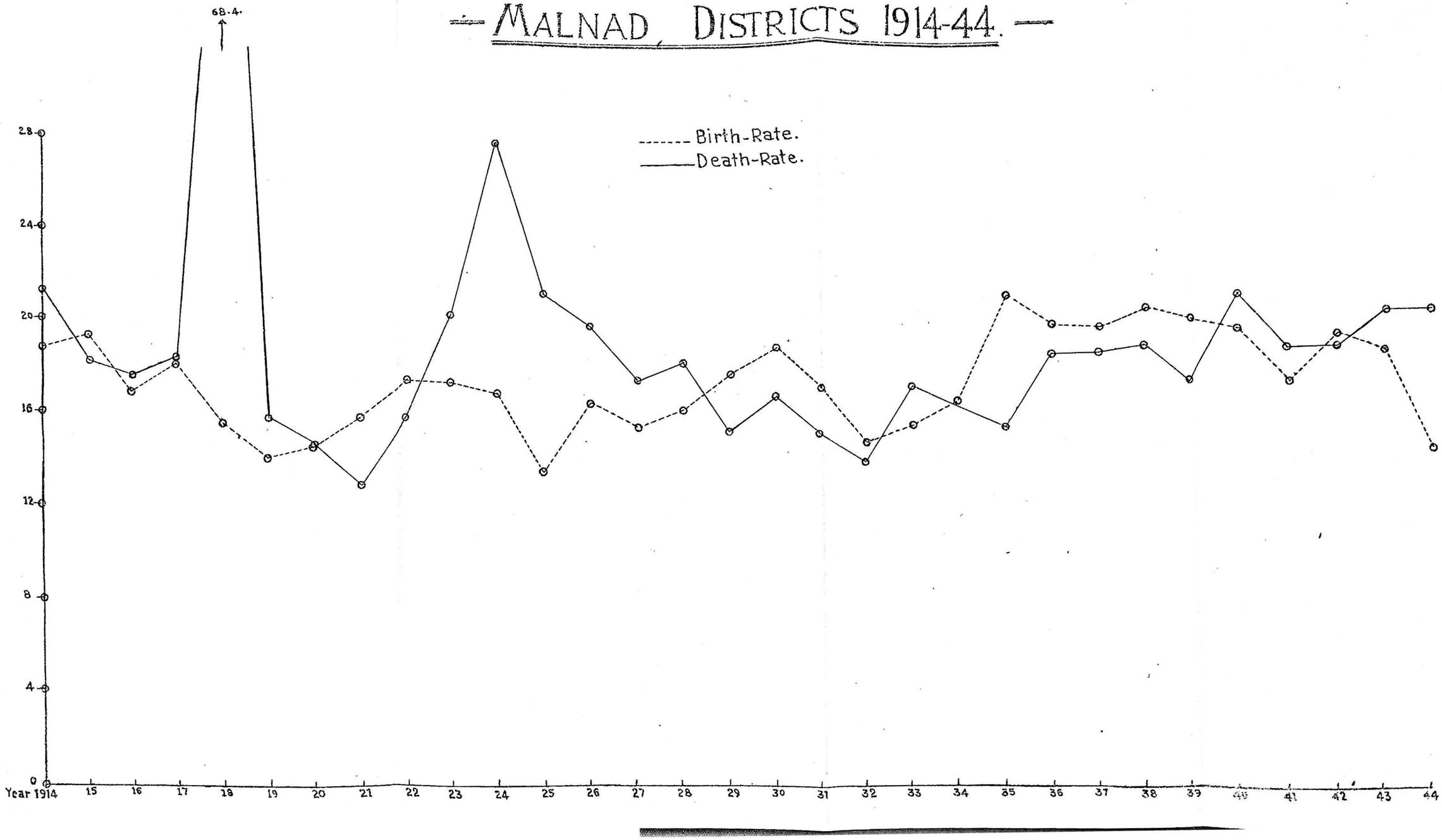


MALNAD, DISTRICTS 1914-44.



APPENDIX 2.

STATISTICS (MEDICAL).

(i)

District	Number of Medical Institutions		Average area covered by each in square miles		Average population served	
	1911	1945	1911	1945	1911	1945
Hassan .	11	49	242	53	52,745	13,082
Kadur ...	14	43	199	64	24,175	8,439
Shimoga ...	15	43	268	94	34,447	13,131

(ii)

Number of midwives employed in the three districts and the number of labour cases conducted by them in 1914 and 1944.

District	Number of midwives		Number of labour cases attended	
	1914	1944	1914	1944
Hassan ...	12	54	894	2,901
Kadur ...	11	30	558	2,409
Shimoga ...	15	41	828	2,999

Number of out-patients treated under the several diseases in the Malnad Districts of the Mysore State during the years 1938-43.

Diseases	Hassan District						Kadur District		
	1938	1939	1940	1941	1942	1943	1938	1939	1940
1	2	3	4	5	6	7	8	9	10
Dysentery	11,095	12,502	13,502	16,047	15,362	13,987	9,423	11,377	10,820
Enteric Fever	596	646	444	326	252	653	62	212	930
Ankylostomiasis	9,856	8,667	8,106	9,916	9,922	9,484	3,982	2,431	2,422
Malaria	...	...	210,105	293,970	231,666	212,154	...	...	193,249
Plague	288	193	1,061	275	147	158	98	41	151
Pneumonia	3,305	4,007	3,942	5,125	5 753	5,401	4,400	3,147	2,016
Anaemia	4,736	5,339	5,414	7,836	9,252	9,118	3,896	4,974	4,532
Diseases of the Respiratory System ...	64,156	70,002	77,349	68,650	69,044	71,173	55,929	59,074	64,571
Abortions	...	...	...	...	152	179	...	...	...
Miscarriages	...	...	...	...	47	56	...	...	...

Diseases	Kadur District			Shimoga District					
	1941	1942	1943	1938	1939	1940	1941	1942	1943
	11	12	13	14	15	16	17	18	19
Dysentery	13,279	12,789	12,737	18,494	17,097	18,520	20,491	14,767	9,700
Enteric Fever	152	253	270	81	82	100	265	441	150
Ankylostomiasis	3,556	4,784	4,381	2,961	2,719	2,082	3,252	3,400	3,423
Malaria	222,157	252,081	233,766	...	...	314,205	279,105	258,301	264,081
Plague	273	9	380	14	20	2	84	119	175
Pneumonia	2,473	3,471	4,641	1,364	1,745	2,259	1,484	1,293	1,348
Anaemia	6,745	8,172	5,241	5,445	6,535	8,078	8,352	7,937	6,782
Diseases of the Respiratory System ...	66,339	68,801	61,345	68,799	75,184	81,279	84,569	74,656	86,452
Abortions	...	501	76	...	...	...	...	148	228
Miscarriages	...	163	43	...	...	...	...	45	188

APPENDIX 3.

Statement of consumption of, and Revenue derived from, Arrack in each of the Malnad Taluks and in the entire State for the years 1910-11 and 1944-45.

Name of Taluk	1910-11			1944-45		
	Consumption in gallons	Revenue in Rs. Rentals	Duty	Consumption in gallons	Revenue in Rs. Rentals	Duty
		Rs.	Rs.		Rs.	Rs.
Hassan District—						
1 Manjarabad (Saklespur)	3,641	3,279	...	4,806	66,012	...
2 Belur ..	2,923	2,820	...	3,112	39,720	...
Kadur District—						
3 Tarikere ...	3,744	5,208	...	3,319	42,000	...
4 Chikmagalur ...	9,772	11,658	...	6,635	108,000	...
5 Mudigere ...	4,368	4,488	...	3,202	39,600	...
6 Koppa ...	5,440	6,144	...	2,768	42,012	...
7 Narasimharaja-pura.	1,943	2,466	...	1,563	21,612	...
Shimoga District—						
8 Shimoga ...	16,688	12,492	...	7,607	125,680	...
9 Shikarpur ..	4,447	5,775	...	2,065	22,920	...
10 Sorab ...	3,812	3,918	...	3,151	51,120	...
11 Sagar ...	5,268	6,282	...	4,100	53,100	...
12 Nagar ...	2,481	2,649	...	2,131	12,960	...
13 Tirthahalli ...	8,987	7,104	...	4,100	53,100	...
Total ...	73,514	74,283	...	48,559	679,000	...
14 Total for the State ...	375,757	3,33,598	18,27,104	371,612	38,04,942	29,19,037

APPENDIX 4.

Statement regarding the working of Land Mortgage Societies in Malnad.

Sl. No.	Name of Society	Membership in each Society	No. of applns. registered in each Society		Loans Sanctioned		Loans Rejected		Amount Disbursed	Amount Repaid	Balance Due
			No.	Amount	No.	Amount	No.	Amount			
1	2	3	4	5	6	7	8	9	10	11	12
				SHIMOGA DISTRICT.							
				Rs.		Rs.		Rs.	Rs.	Rs.	Rs.
1	Shimoga L. M. C. S.	272	227	3,53,098	133	1,84,518	78	1,33,610	39,165	19,736	19,429
2	Sagar do	153	35	67,575	35	67,575	6	16,250	67,575	13,866	53,709
3	Bhimanakone do	111	50	69,000	50	69,000	5	6,250	65,600	28,250	37,350
4	Sorab do	65	5	7,500	5	7,500	3	5,500	2,500	925	3,425
5	Shikaripur	60	10	7,340	10	7,340	1	430	3,640	411	3,229
6	Thirthahalli do	100	16	32,985	13	25,485	1	5,000	25,485	1,920	23,565
		761							2,03,965	65,108	1,40,707
7	Hosnagar do	...	Not affiliated to the Bank for getting loans.								
				KADUR DISTRICT.							
8	Kadur L. M. C. S.	89	20	21,761	9	6,925	7	9,850	5,425	95	5,330
9	Tarikere do	63	22	32,750	6	8,650	1	800	7,650	2,841	4,809
10	Mudigere do	139	29	63,874	17	29,300	9	20,350	17,800	9,970	7,830
11	Koppa do	110	90	2,01,670	27	66,500	20	58,770	29,300	8,724	38,024
12	Karimane do	122	43	68,350	43	68,350	6	19,350	68,350	29,391	38,959
13	Narasimharajpur	90	68	1,12,934	45	68,275	21	26,760	29,500	13,614	15,886
14	Chikmagalur	224	122	2,81,129	93	2,06,514	30	81,065	76,450	24,709	51,741
		837		HASSAN DISTRICT.					2,34,475	89,344	1,62,579
15	Saklespur	279	189	3,50,377	92	1,66,190	26	49,441	1,11,850	38,991	72,859
16	Yeslur	97	80	92,270	47	59,720	33	32,550	24,615	9,740	14,875
17	Belur	170	46	44,984	33	26,235	11	11,070	20,385	1,841	18,544
18	Alur	... No applications for loans have been received from this Society.							...	...	...
		546							1,56,840	59,572	1,06,278

APPENDIX 5.

Extents of assessed unoccupied lands and Current Fallows.

	Taluk	Assessed lands available for cultivation in 1944-45	Current fallows*	
1	Shimoga ...	21,340	17,024	Includes
2	Shikarpur ...	21,307	25,073	Kumsi.
3	Sorab ...	24,819	55,762	
4	Sagar ...	24,456	33,628	
5	Nagar ...	13,704	24,604	
6	Tirthahalli ...	5,870	37,261	
7	Kumsi ...	4,265	...	
8	Chikmagalur ...	28,052	25,707	
9	Tarikere ...	26,219	9,475	
10	Koppa ...	5,503	31,507	Includes
11	Mudigere ...	9,316	16,254	N. R. pura.
12	Narasimharajapura ...	10,253	...	
13	Manjarabad ...	17,222	37,588	
14	Belur ...	15,406	27,109	
15	Alur ...	8,383	11,946	
	Total ...	236,115	352,938	

* Season and Crop report of 1942-43.

APPENDIX 6.

Comparative statement showing the total value of property and the total amount of debt in the selected Malnad Villages according to the economic survey held in 1941 and 1945.

	Name of Village	Total value of properties		Total amount of debt for the whole village	
		1941	1945	1941	1945
		Rs.	Rs.	Rs.	Rs.
1	Kundur	42,672	68,765	11,314	13,868
2	Magge-	43,867	98,185	6,273	10,500
3	Palya	29,097	78,025	11,250	13,518
4	Mandalamane	33,050	57,726	2,496	4,125
5	Arehally	3,04,232	7,73,156	37,683	36,450
6	Nayenahally	1,01,924	1,78,377	24,839	21,255
7	Halebelur	98,462	66,827	7,144	10,259
8	Belagod	91,879	1,74,255	28,443	32,699
9	Bago	18,062	59,825	7,914	34,483
10	Yesalur	1,77,477	7,57,711	39,544	73,292
11	Hanabal	1,95,663	5,05,180	18,797	70,806
	2. KADUR DISTRICT.				
12	Dwaranahalu	97,739	3,34,455	20,403	20,763
13	Bagguvalli	1,43,744	2,47,785	22,752	23,214
14	Bukkambudi	3,50,759	8,43,773	29,945	65,139
15	Lingadahalli	2,43,628	6,08,023	39,175	66,166
16	Amruthapura	60,961	1,39,355	6,190	12,305
17	Belavadi	1,23,601	3,54,762	21,056	20,469
18	Hiregowja	79,118	1,61,538	13,463	24,749
19	Mylemane	3,19,748	5,14,854	2,00,568	1,94,092
20	Dattatreya Petta	1,95,445	1,77,210	22,180	22,002
21	Gunavanthe	42,827	65,805	14,774	11,415
22	Hariharpura	1,60,946	2,82,781	34,420	41,254
23	Jayapura	1,50,652	3,55,070	49,369	39,683
24	Nelagadde	55,928	68,520	8,240	19,026
25	Kanabur	2,41,220	8,90,294	29,005	98,886
26	Makonahalli	3,61,485	3,72,183	74,617	85,618
27	Gonibeedu	56,727	1,36,510	13,690	10,456
28	Kudahalli	25,847	74,573	2,565	14,766
29	Niduvale	4,64,072	4,54,616	1,19,938	60,024
30	Kavadi	37,218	64,580	24,405	7,601
	3. SHIMOGA DISTRICT.				
31	Doddaboppenahalli ...	48,411	61,200	14,904	25,166
32	Kallihal	55,040	1,32,715	11,883	20,502
33	Kage-Kodamaggi	42,044	97,008	11,569	25,453
34	Balekoppa	1,08,360	1,76,810	10,325	23,712
35	Ayanur	1,64,465	2,54,150	43,578	56,900
36	Gama	1,91,768	5,01,854	33,498	48,363
37	Kagenahalli	2,80,517	6,03,415	11,973	14,137
38	Chikkajambur	60,638	1,02,896	9,553	6,171
39	Malavalli	83,459	1,53,210	4,449	5,105
40	Andige	44,713	1,20,175	2,785	4,826
41	Sigga	49,061	1,27,950	10,996	8,908
42	Hosabale	1,38,494	3,11,850	14,890	30,998
43	Anavatti	3,28,015	7,95,184	33,124	33,407
44	Keladi	1,91,753	3,23,404	83,112	67,197
45	Hamse	29,158	62,794	6,833	11,821
46	Malur	29,463	79,130	15,352	2,958
47	Bheemanakone	92,941	1,90,615	27,135	59,898
48	Kabala	8,685	29,490	6,550	10,364
49	Haniya	39,225	85,375	14,525	28,710
50	Alavalli	42,976	79,615	13,620	8,464
51	Bharatipura	75,244	1,22,840	45,340	39,046
52	Megaravally	7,25,200	6,67,737	1,03,352	1,51,453
53	Bhandya	1,80,553	3,11,310	43,273	53,575

APPENDIX 7.

Statement of the value of 'Sales' and 'Mortgages' transactions in the Malnad Taluks of the districts of Kadur, Hassan and Shimoga as per Registration Statistics.

Years	Kadur District		Hassan District		Shimoga District	
	Value of mortgages	Value of sales	Value of mortgages	Value of sales	Value of mortgages	Value of sales
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1930—31 ...	13,30,079	12,13,488	...	...	...	...
1931—32 ...	10,15,575	9,38,082	...	...	...	...
1932—33 ...	13,24,763	12,27,982	...	...	...	...
1933—34 ...	17,32,105	13,29,572	...	...	...	...
1934—35 ...	12,91,945	11,72,803	1,48,225	3,26,034	...	...
1935—36 ...	13,39,305	10,12,021	2,20,423	3,06,392	...	...
1936—37 ...	12,36,034	12,79,706	2.19,252	3,91,916	...	...
1937—38 ...	11,21,751	14,64,973	1,86,548	2,89,183	...	...
1938—39 ..	7,84,278	16,49,107	2,08,147	3,45,770	2,92,118	5,10,077
1939—40 ...	5,20,403	8,85,517	1,99,562	2,86,433	2,26,705	5,42,231
1940—41 ...	5,43,662	13,21,152	2,28,136	3,03,548	1,75,638	6,20,407
1941—42 ...	5,19,689	11,95,600	2,27,590	3,63,540	2,28,616	6,82,549
1942—43 ...	10,24,102	44,68,547	2,62,252	5,39,035	2,56,405	10,72,262
1943—44 ...	11,89,335	46,73,817	4,14,802	7,47,345	3,38,312	10,59,326
1944-45 ...	11,83,689	31,01,678	4,15,055	6,65,024	4,23,523	12,23,258
1945—to date	6,42,539	27,76,070	...	...	...	...

APPENDIX 8.

Bus Routes and Bus Services in the Malnad.

Hassan District.

	Name of Route	*No. of services*
1	Hassan-Chikmagalur *via* Belur	3
2	Hassan-Saklespur *via* Alur	4
3	Saklespur-Arsikere	1
4	Saklespur-Chikmagalur *via* Belur	1
5	Saklespur-Uchangi *via* Yeslur	1
6	Saklespur-State frontier	3

Kadur District.

1	Chikmagalur-Kadur	2
2	Chikmagalur *via* Sakrepatna	3
3	Chikmagalur-Birur *via* Sakrepatna	2
4	Chikmagalur-Tarikere and on to Hosadurga ...	1
5	Chikmagalur-Tarikere and on to Shimoga District border	1
6	Chikmagalur-Kemmangundi-Tarikere and on to Shimoga District border	1
7	Chikmagalur-Tarikere *via* Birur	1
8	Chikmagalur-Banavar	1
9	Chikmagalur-Hassan	4
10	Chikmagalur-Shimoga *via* Belur	1
11	Chikmagalur-Shimoga *via* Tarikere	1
12	Chikmagalur-Mudigere frontier	1
13	Chikmagalur-Mudigere-Kotigehar	3
14	Chikmagalur-Koppa *via* Balehonnur	1
15	Kotigehar-Kadur *via* Mudigere	1
16	Kotigehar-Frontier	1
17	Shimoga-Narasimharajapura-Koppa-Agumbe ...	1
18	Sringeri to Agumbe	1
19	Hassan District border-Mudigere and on to frontier ...	1
20	Chikmagalur-Mallasandra	1
21	Chikmagalur-Attigundi	1
22	Koppa-Sringeri	2
23	Tarikere-Narasimharajapura	1

Shimoga District.

1	Shimoga-Tirthahalli-Agumbe	7
2	Shimoga-Chitaldrug *via* Chennagiri	3
3	Shimoga-Tarikere Road	3
4	Shimoga-Koppa *via* Umblebyle	1
5	Shimoga-Umblebyle	2
6	Shimoga-Harihar	2
7	Shimoga-Sasalu *via* Santhebennur	1

8	Shimoga-Sowlanga-Honnali upto District border	...	...	4
9	Shimoga-Bellary	...	...	1
10	Shimoga-Shikarpur-Shiralkoppa	...	...	1
11	Shimoga-Sagar *via* Kumsi	...	...	1
12	Shimoga-Sagar-Shikarpur-Sorab	...	...	1
13	Shimoga-Ayanur-Hosanagar-Bolabave		...	2
14	Sagar-Talaguppa frontier	...	...	2
15	Shimoga-Ayanur-Hosanagar-Bolabave	...	...	3
16	Agumbe-Begar	...	...	2
17	Sagar-Avinahalli-Nagavalli frontier	...	...	1
18	Sagar-Benhatti frontier	...	...	1
19	Sagar-Jog *via* Talaguppa	...	...	2
20	Sagar-Jog *via* Madenoor	...	...	1
21	Madenoor to Jog	...	...	1
22	Sagar-Sunnadakoppa frontier	...	...	1
23	Sagar-Hosanagar-Bolahave	...	...	1
24	Sagar-Anavatti frontier	...	...	1
25	Shiralkoppa-Anavatti frontier	...	...	1
26	Tirthahalli-Arasalu	...	...	1
27	Tirthahalli-Yadru-Hulikal	...	...	1

APPENDIX 9.

Suggestions made by the malnad members of the Representative Assembly when they met the Committee on Sunday the 9th June 1946.

1. More itinerary dispensaries, hospitals, both allopathic and Ayurvedic, and maternity homes should be opened and the number of midwives should be increased so as to be within easy reach all over the area.

2. Communications vital for marketing of perishable products like oranges, plantains, jack fruits, etc., should be opened.

3. (*a*) Cottage industries suitable for the malnad should be started and developed.

(*b*) Fruit canning and other minor industries should be developed.

(*c*) Smithy and carpentry classes should be opened in middle schools; and industrial schools should be opened in all taluk headquarters.

4. To solve the problem of scarcity of labour, suitable facilities for colonisation by the grant of concessions like free grant of lands, etc., should be afforded.

5. As even the routine facilities are not available in the malnad, as a matter of course, and the staff does not "stick" in the malnad, needful inducements should be shown to the staff to make them contented and work whole-heartedly.

6. Special rates should be allowed for road works in the malnad.

7. All taluk headquarters should be connected by railway.

8. (*a*) The Malnad Raiyats Privileges Rules should not be abolished as suggested by the Chief Conservator of Forests.

(*b*) As the administration of these privileges is now operating as a hardship, better arrangements should be made to ensure proper use of privileges and the administration of the rules should be entrusted to the Revenue Department, the Forest Department not being allowed to interfere in any manner.

9. As wild beasts are causing damage to crops, they should be destroyed and more gun licences should be issued.

10. Adequate steps should be taken for the reduction or redemption of the debts of the malnad people.

11. (*a*) The Agricultural Department should undertake soil survey, soil analysis, etc., and tender detailed advice to the raiyats about improvement of the crops with special reference to the manure to be used, the mode of cultivation, etc.

(*b*) Arrangements should be made for the supply of agricultural implements and manure at concessional rates.

(c) Breeding bulls should be maintained by Government, the raiyats being required to pay for services.

12. Special gangs should be engaged for the public works in the malnad.

13. As the Debt Conciliation Scheme as administered at present is ineffective, the scheme should be modified so as to vest powers in the Boards to pass decrees and adjudicate.

14. Prohibition should be enforced in the malnad and arrack shops should be closed.

15. Research should be conducted to find out some pests which will eradicate lantana.

16. Kadur-Chickmagalur-Mudigere-Kotgehara Road should be concreted.

17. Bore wells should be sunk in the malnad.

18. Transference of property to outsiders should be prohibited.

19. Bulletins should be issued periodically in regard to agricultural matters.

20. An areca research station should be started for investigation of measures for the eradication of:

(i) Anaberoga; and

(ii) for devising machinery for the removal of areca rind.

21. Quinine should be arranged to be distributed through the Village Officers also.

22. Manufacture of pencils and similar soft wood products in universal use from the available wood in the malnad should be undertaken.

23. A scheme for the housing of Adikarnatakas by Government agency should be evolved.

24. Lands should be granted to Adikarnatakas more freely over-ruling objections, if any.

25. Adikarnataka Pracharakas should be appointed for the malnad taluks at two per taluk.

26. Adikarnatakas should be represented on all malnad improvement agencies.

27. Raw materials such as "Vate" should be allowed to be taken free for industries like basket-making, mat-weaving, etc.

28. At least one half of the excise duties collected from coffee and areca should be devoted to malnad development.

29. An All India Areca Board on the lines of Coffee and Cocoanut Boards should be established.

30. Hostels should be attached to all Middle Schools.

31. There should be a Commissioner solely for Malnad Development of the status of the Head of Department.

32. The committee members should tour the malnad if the entire committee cannot itself tour out.

33. The Bhatkal harbour should be developed.

APPENDIX 10.

Extract from the Hindu, dated the 15th July 1946.

AD-HOC COMMITTEE'S RECOMMENDATION.

(FROM OUR CORRESPONDENT.)

New Delhi, July 9.

The development of Vizagapatam as a sheltered deep-sea port, the vesting in the Madras Port Trust of prescriptive rights over the land south of the harbour so that the harbour water-front can be enlarged as and when the trade of the port may demand it, the completion within a period of ten years of the Wet Dock Scheme for four berths of the Madras Port Trust, the development of Sika in Jamnagar State as a major sea port between Karachi and Bombay as well as of Bhatkal on the West Coast, to handle the traffic of Mysore State and pursuance of measures to conserve the coastline of India under the Central Government's responsibility are among the important recommendations made to Government by the Ports Technical Committee consisting of Messrs. G. G. Armstrong, M. H. Gazda, M. A. Master, D. P. Khaitan, L. W. Balcombe, J. R. Galloway and A. Webster, which was appointed by the Governor-General in October 1945 as a result of the recommendation of the Policy Committee on Transport.

The Ports Technical Committee urge the recognition of the economic indivisibility of India as a whole, of the increasing requirements of India's expanding agriculture and industries and the desirability of the dispersal of industry of the desirability of routing trade without its being influenced, by customs policy, of the needs of Defence and of India being obliged to keep peace and ensure security in the Indian Ocean area and of the necessity for a long range view in siting new ports and developing old ones. The Committee have urged the development of Vizagapatam as a deep-sea port capable of accommodating ships up to 650 feet in length with drafts up to 30 feet by improvement at the entrance to the harbour, the expansion of quays and the building of a dry dock with financial aid from the Government of India. The improvement of the railway system leading to Vizagapatam and development of that town and of Waltair are also recommended. As regards Madras, the Committee have recommended that the Port Trust authorities should continue the experiments they have been carrying on to reduce the range of waves generated far out in the deep sea by cyclonic storms and which are propagated inside the harbour lake, consequently rendering unsafe two or more berths along side the present quays.

Outlet for Mysore.

The Committee is of opinion that the development of Bhatkal as a major port is essential for providing a good economic outlet for the trade of the large and rich hinterland of the Mysore State lying behind it. From the data of the existing and potential traffic and engineers' report relating to such a scheme placed before it, the Committee considers it both a practical and good financial proposition. In view, however, of the fact that the engineering report and part of the traffic estimate were made a generation ago, the Committee is of the opinion that a fresh report regarding engineering possibilities of the scheme and fresh data of traffic should be called for.

APPENDIX 11.

Extracts from Bhore Committee Report (Summary).

The doctor of the future should be a "social physician protecting the people and guiding them to a healthier and happier life". He should place prevention of disease in the forefront of his programme and should so combine remedial and preventive measures as to confer the maximum benefit on the community. The Committee's proposals for the training of the 'basic' doctor, the term applied to the medical graduate of the future, are designed to equip him for all such duties.

The active support of the people is sought to be secured through the establishment of Health Committees in every village and through the stimulation of local effort for the improvement of environmental sanitation, control of infectious diseases and other purposes. A wide programme of health education, covering all sections of the population, is also proposed for promoting the growth of such public support. (Foreword).

* * * *

13. In drawing up a health plan certain primary conditions essential for healthful living must in the first place be ensured. Suitable housing, sanitary surroundings and a safe drinking-water supply are pre-requisites of a healthy life. The provision of adequate health protection to all covering both its curative and preventive aspects, irrespective of their ability to pay for it, the improvement of nutritional standards qualitatively and quantitatively, the elimination of unemployment, the provision of a living wage for all workers and improvement in agricultural and industrial production and in means of communication, particularly in the rural areas, are all facts of a single problem and call for urgent attention. Nor can man live by bread alone. A vigorous and healthy Community life in its many aspects must be suitably catered for. Recreation, mental and physical, plays a large part in building up the conditions favourable to sound individual and community health and must receive serious consideration. Further, no lasting improvement of the public health can be achieved without arousing the living interest and enlisting the practical co-operation of the people themselves.

* * * *

29. The health organisation briefly described above is expected to produce a reasonably satisfactory service for rural and urban communities alike. It is based mainly on a system of hospitals of varying size and of differing technical efficiency.

These institutions will play the dual role of providing medical relief and of taking an active part in the preventive campaign. Work in connection with maternity and child welfare, tuberculosis, leprosy, etc., will be carried into the homes of the people from the hospitals, the outdoor organisations in respect of each of them being closely related to these institutions.

* * * *

36. The health programme in India should be developed on a foundation of preventive health work and proceed in the closest association with the administration of medical relief. A reduction in the demand for curative treatment can be secured only through successful preventive work. Both the doctors in the primary unit should therefore perform curative and preventive health duties.

* * * *

39. No permanent improvement of the public health can be achieved unless the active participation of the people in the local health programme can be secured. We have therefore suggested the establishment, in each village, of a Health Committee consisting of five to seven individuals, depending on the size and population of the village. The members of the Committee, who will of course be voluntary workers, can, after suitable training, help to promote specific lines of health activity. Their local knowledge and intimate contact with the people should enable the members of the committee to influence the former to accept and actively advance the health measures which are designed to promote the public welfare. The committee members should also be able to promote local effort, without payment, towards the carrying out of many measures which would otherwise prove prohibitive in cost. We consider that the development of local effort and the promotion of a spirit of self-help in the community are as important to the success of the health programme as the specific services which the health officials will be able to place at the disposal of the people.

* * * *

The scheme is intended to promote, from the beginning, the development of remedial and preventive health work on a unified basis as well as to provide an integrated institutional and domiciliary service to the people. The existing curative and preventive health services are, on the other hand, functioning independently of each other with unsatisfactory results. In all progressive countries the requirements indicated above are considered as essential features of a modern health organisation.

(Footnote on page 17)

Under-graduate Education.

233. Considerable thought has been given by us to the type of training necessary for the evolution of the "basic" doctor and advice was sought from a strong and representative panel of experts in the field of medical education from different parts of the country. The main ideas underlying the changes recommended in the undergraduate curriculum include a reorganisation of the teaching both in the pre-clinical and clinical fields; a reduction in the hours of didactic instruction in certain subjects and an emphasis on the inclusion of principles and methods which will enable the student to learn for himself, think, observe and draw conclusions; the establishment, in every medical college, of a Department of Preventive and Social Medicine so as to give the student an insight into social health problems by contacts with home and community life and the inclusion of a year of "internship" after the qualifying examination, of which three months will be devoted to work in a public health unit and the remaining period in a hospital of approved standard.

APPENDIX 12

Extracts about T. V. A.

The most successful and best known experiment in Regional Planning is that of Tennessee Valley, U. S. A. The following paragraphs seek to make available first-hand information about the T. V. A. in the shape of extracts from two* books published about that Authority.

1. INTRODUCTORY.

The T. V. A's. task and its achievement in brief are follows :—

A 1—2. "The task of the T. V. A. was in its broadest terms one of regional development. It was directed to promote, by its own efforts and by its example, the control, conservation, and wise utilization of the natural resources of the Tennessee Valley. It was authorised to build dams, and to operate them for the promotion of navigation, the control of floods, and the generation of power. It was directed to concern itself with conservation of the valley's soil, to experiment with the manufacture of fertilizer and to use the product in a programme of education towards improved soil-preserving agricultural practices It was envisaged as an agency which, unhampered by state lines. or departmental jurisdictions, would examine into the peculiar economic and social problems of its area considering all the factors that go to produce human well being, and would then build out of the abundant resources available an integrated programme of regional habilitation."

A 322. "Credit for the Authority's excellent administrative accomplishments is in part due to its organizational form, that of a public corporation, which constitutes a bridge between private and public enterprise likely to be increasingly used in the administration of economic undertakings by governments. Its intent is to blend the administrative autonomy and financial freedom of the private business corporation with public accountability and control."

B 5-6. "The physical achievements that science and technology now make possible may bring no benefits, may indeed be evil, unless they have a moral purpose, unless they are conceived and carried out for the benefit of the people themselves.

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*A. The T. V. A. (A Study in Public Administration) by C. Hermann Pritchett, a former official of T V. A.

B. T. V. A. (Democracy on the March) by David E. Lilienthal, its present Director.

(Both the books are available in the G. R. S. Library).

But such a moral purpose alone is not enough to insure that resource development will be a blessing and not a curse. Out of T.V.A. experience in this valley, I am persuaded that to make such a purpose effective two other principles are essential.

First, that resource development must be governed by the unity of nature herself.

Second, that the people must participate actively in that development.

If the unity of nature's resources is disregarded, the price will be paid in exhausted land, butchered forests, polluted streams, and industrial ugliness. And, if the people are denied an active part in this great task, then they may be poor or they may be prosperous but they will not be free."

2. The Region.—The Tennessee Valley in 1933, the year T. V. A. was created, was as follows:—

A-118-9. "There were in 1930 slightly over 2,800,000 people in this area of 40,000 square miles. It was a region of large families and high fertility rate.

The valley was largely non-industrial, and the people typically lived in small towns or on farms. The two largest cities, Chattanooga and Knoxville, were only slightly over 100,000 population in 1930. Type of farming varied from the hill patch of East Tennessee to the cotton plantation of north Alabama. There were 13,000,000 acres of woodlands.

The climate was kindly, the rainfall abundant, natural resources were many and varied, including coal and water power, and the people came from good stock. Yet the area was characterized by backwardness and sub-normal living standards, by fundamentalism and poverty, by Dayton and Scottsboro. It was a region curiously 'left by the wayside.....caught half-way between an agricultural economy which has always been its main sources of livelihood..... .....and an industrial economy which was still in relatively early stages of growth when it was attacked by the same melody affecting the industry of the entire nation.' The general pattern was that of an exploitative and an exploited community. The soil had been mined, not cultivated, and was being destroyed by erosion. The forests had been wantonly slaughtered. According to the pattern of a raw material, colonial economy, resources were shipped out with little margin to the people who did the work, and were bought back in fabricated form. Such manufacturing as was done in the valley tended to give low-wage employment, as in the textile mills."

B-78. "The farm experts, both in the Department of Agriculture's scientific bureaus in Washington and in the state agencies of Tennessee Valley, had known most of the technical answers to separate problems of soils, of fertilizer, of terracing, and had known them for a good many years. They were competent in their special fields, and devoted to their work.

Nevertheless, farm income in the valley continued at a low ebb; in some countries the average cash income for a farm family was less than $ 150 a year. Soil losses were appalling. Farm tenantry increased.

The technical knowledge of farming problems in the agricultural agencies, state and federal, was extensive, but it was largely generalized. It was not based on the needs of a particular farm or farming community. When this knowledge did reach the farmer, through reports of scientific results on experimental plots, in pamphlets, or by word of mouth through one of many agencies, it was usually a succession of separate bits of knowledge, and it was often remote from the farmer's individual problems. He was likely to be confused by the multiplicity of 'remedies' and the more than a score of different governmental agencies with which he must deal on agricultural problems."

3. The idea behind Regional Planning was this in the words of the late President Theodore Roosevelt.—

A 28. "Planning had the challenge of the new, the untried. I am convinced that one of the greatest values of this total regional planning is the fact that it dares us to make experiments."

" There (in T. V.) we have an opportunity of setting an example of planning, not just for ourselves but for the generations to come, tying in industry and agriculture and forestry and flood prevention, tying them all into a unified whole over a distance of a thousand miles, so that we can afford better opportunities and better places for living millions yet unborn in the days to come."

A 29. " I suggest to the Congress legislation to create a Tennessee Valley Authority—a corporation clothed with the power of government but possessed of the flexibility and initiative of a private enterprise. It should be charged with the broadest duty of planning for the proper use, conservation, and development of the natural resources of the Tennessee River drainage basin and its adjoining territory for the general, social and economic welfare of the nation. This authority should also be clothed with the necessary power to carry those plans into effect."

B 199. " The T.V.A. idea of plannings sees action and planning not as things separate and apart, but as one single and continuous process. In the President's message to the Congress in 1933, this fact was stressed. The words bear repetition here: The T.V.A., he said, " should be charged with the broadest duty of planning for the proper use, conservation, and development of the natural resources of the Tennessee River drainage basin and its adjoining territority for the general social and economic welfare of the Nation." Then follows this sentence: " This Authority should also be clothed with the necessary power to carry these plans into effect."

This is fundamental.

The T. V. As.' purpose was not the making "of plans but that a valley be developed."

A131-2. The T. V. A. was established directly upon a regional or geographical basis. It was not given a major function to perform for the entire country, but was assigned general developmental responsibility for a certain section of the country. What it was to do in this region on a unified basis, was being done throughout the rest of the country, in part at least, by numerous separate and independent departments, bureaus, and agencies of the federal government. The T. V. A. was given a responsibility for the valley's soil and agriculture, which the Department of Agriculture had for the country generally. It was to plan and build dams and sell power and assist navigation, as did the Reclamation Service and the Corps of Engineers elsewhere in the nation. It proposed to conserve and develop the valley's forests, which was also part of the larger job of the U. S. Forest Service and the Civilian Conservation Corps.

The unique position of the T. V. A. begins to emerge from a consideration of these facts. It was based on the conception that there was something to be gained by accepting a particular region, rather than a particular function, as the basis for organization. It assumed that single-purpose departments operating on a nationwide basis were likely to impinge upon a particular area in a rather segmented and unco-ordinated fashion, and that a corrective could be supplied by setting up a unified multi-purpose federal agency with jurisdiction limited to a single region.

For the first time a President and Congress viewed the problems of a region as a "seamless web", recognizing that one strand cannot be torn without affecting every other strand. The problems of the Tennessee Valley were viewed as a single problem of many integrated parts, rather than dissected into separate bits in order to fit the pigeonholes of existing governmental instrumentalities. This thesis of unity led Congress to vest no single function of the Federal Government in the T.V.A. but rather an integrated group of Federal functions related to the regional conservation of natural resources of water and land and to promote the interests of the people of a region."

A-222. The T. V. A. was organized as a corporation with the definite expectation that this form would give it a status different from that of ordinary government departments, a freedom in administration which was believed justified and desirable in carrying on the programme with which it was entrusted."

A-228. "The use of the corporate form of organization had been shown to be generally effective in securing a substantial freedom from ordinary government financing, auditing, and

personnel practices, and had allowed the adoption of methods suited to a commercial undertaking."

B-172. "The job having been defined and the broad policies laid down, Congress in the TVA Act did what is new in our history: it fixed upon one agency the responsibility for results in resource development in a region. What seems the plainest sense to a manager, *i.e.*, fixing responsibility in one place for an entire undertaking of many parts, all interrelated and interwoven—land, water, minerals, forests—was virtually a revolution in Government administration.

B-147. "Decisions could be made and responsibility taken at a point that was close to the problems. That is the test of decentralization."

B-153. "The TVA idea in its essentials are—

—a federal autonomous agency, with authority to make its decisions in the region,

—responsibility to deal with resources, as a unified whole, clearly fixed in the regional agency, not divided among several centralized federal agencies,

—a policy, fixed by law, that the federal regional agency work co-operatively with and through local and State agencies."

The TVA Board was constituted as follows:—

A-147. The TVA Act provided for control of the corporation by a three-man board of directors, appointed by the President by and with the advice and consent of the Senate. The Chairman of the board was to be designated by the President. The directors were given nine-year terms regularly, but two of the first three directors were to be appointed for shorter terms, one for six years and the other for three years.

5. The TVA developed methods of work suited for the purpose for which it was created.

A-119. "In so far as the goal was to be sought by a general planning approach, the TVA had to rely on the powers given it by the two so-called "planning sections" of the TVA Act which, strangely enough, did not even mention the Authority. Section 22 authorized the President to make "surveys of and general plans for" the Tennessee basin area which would be useful to Congress and the States "in guiding and controlling the extent, sequence, and nature of development that may be equitably and economically advanced through the expenditure of public funds, or through the guidance of control of public authority, all for the general purpose of fostering an orderly and proper physical, economic, and social development of said areas..." Section 23 directed the President to recommend to Congress from time to time legislation to carry out the purposes of the preceding section, and these purposes were specified to include "the economic and social well-being of the people living in said river basin".

A-219. "Perhaps the most important administrative contribution of the TVA has been its self-conscious effort, to discover

just how far and how effectively in its administration a Federal program can be brought closer to the people and their problems, how far a Federal agency can take local and State instrumentalities into active partnership".

B-37. "The very essence of TVA's method in the undertaking was at every hand to minimize what it was to do directly and to encourage and stimulate the broadest possible coalition of all forces. Private funds and private efforts, on farms and in factories; State funds and State activities; local communities, clubs, schools, associations, co-operatives—all have had major roles. Moreover, scores of federal agencies co-operated—the Civilian Conservation Corps; the Department of Agricuture through such agencies as the Farm Security Administration, the Rural Electrification, Administration, the scientific research bureaus, the Agricultural Adjustment Administration, the Commodity Credit Corporation, the co-operative loan banks and the Forest Service; the Public Health Service; the Army Corps of Engineers; the Coast Guard; the Public Works Administration; several of the bureaus of the Interior Department, the Bureau of Reclamation, the Geological Survey, the Bureau of Mines, the Bureau of Fish and Wildlife Service, the National Park Service; the Geodetic Survey and the Weather Bureau—and so on;"

B-189. *Working at the grass roots is the surest guarantee of that day-to-day adjustment to the needs and aspirations of the people which is the liveliest form of public accountability.* When the managers and the experts are close to the people and their problems, it does not ordinarily take the formality of a Congressional hearing to determine whether the program undertaken is succeeding or needs adjustment, whether staff members are alive to their opportunities or are arrogant and self-seeking.

Decentralization is a kind of mirror in which one can see, each day and each hour, how well or how badly the work responds to its broad purpose. Because it is a regional agency, doing its work and making its decisions in the valley, TVA cannot escape the sight of its mistakes or irresponsibly turn its back upon the stream of daily life. Success can come only through a technical leadership in which the people, not in the mysterious aura of distance but under the revealing and common place light of proximity and familiarity, have confidence. At the grass roots a new kind of accountability is born, more significant than reports reviews, criticism by Congress. It is the day-to-day accountability of working partner to working partner.

B-65. "Technical men are rarely trained to see the problems of the people as a whole, as the TVA was obliged to do.

B-66. The breadth of TVA's undertaking itself made it imperative that we seek out the kind of experts who preferred to work as a part of a unified program. But even at best it is not easy for each specialist to appraise the relative importance of his own task as part of the whole picture, or its importance, as compared with the tasks in some other technical branch. In

fact, the desperate part of the problem, as many people have observed, is the realization of how rarely these different groups of specialists seem to care about anything beyond their own specialities.

B-69. With time, the barbed-wire fences began to come down within the TVA, the fences between the fields of special knowledge put up to keep one specialist out of the other fellow's domain and keep him in his own.

The common moral purpose of benefit to the people, by dint of observation and participation, came to be as real to the experts as some highly technical procedure had always been. They welcomed the chance to broaden their view of their own special fields and to relate them to other areas of knowledge."

B-120. " One of the tasks of the administrator in public or private affairs who is committed to democratic principles is to devise ways of bringing modern science and technical skills to the hand of the layman. And this it is that TVA's work at the grass roots seeks to bring about. If the technical knowledge can be made to serve the individual in the daily decisions of his life, if it can be made to serve the common purpose of improving opportunity for human beings, that is an achievement of democracy in modern form and application.

First of all, the experts and the people must be brought together, The technicians should live where the people they serve live.

B-122. Not only should the experts be brought to the people, but the different kinds of experts, working in special fields that are *related* in their effect upon the people, should live together and work together. And, unless specialists are required by appropriate managerial methods to live together and work together, they will not *unify their conclusions* so that they will make sense to the laymen who must put the results to use in their lives.

Technicians are more competent experts in their special fields when they live and work in the midst of lay problems. The education of the technician by the people themselves is only second in importance to the education of the laymen by the technician.

B-123. The experts who live with the people's problem are better able to learn of the people's aspirations, what it is that the people want and what they would want if they had available a knowledge of the alternatives from which they could make a choice. The people will not trust the experts and give them their confidence until they are persuaded that technicians in business as well as in Government service are not setting up their own standards of what is " good for people ".

And the physical presence of the expert, the fact that he has elected to live with people and their problems, to share their physical and social circumstances, will be accepted by laymen as one kind of proof of the sincere devotion of the expert to the improvement of the everyday living of the people."

APPENDIX 13.

Extracts from the chapter "Malnad Improvement" in "A Plan for the Economic Development of Mysore (Draft)" by Mr. P. H. Krishna Rao, M.A., Commissioner for Economic Development and Planning.

124. In the Malnad Taluks, namely, Manjarabad, Koppa, Narasimharajapura, Sringeri, Mudigere, Nagar, Sagar and Thirthahalli, the population has declined from 3·04 lakhs in 1881 to 3·02 lakhs in 1941 and is continuing to decline in four out of the eight taluks—Manjarabad, Narasimharajapura, Mudigere and Nagar. In the Semimalnad Taluks—Belur, Alur, Chikmagalur, Sorab, Shikarpur, Shimoga and Kumsi—the population may be said to be almost stationary, as it has increased from 3·94 lakhs to 4·02 lakhs or by only two per cent in 60 years, whereas the population of the State as a whole, has increased by 75 per cent in the same period. The rural population, especially, both in the Malnad and in the Semi-malnad Taluks, has considerably declined and is continuing to decline.

127. The most important cause of the decline of population now is disease. The incidence of all diseases except small-pox and consumption is higher in the Malnad than in the Maidan. The morbidity rate in the Malnad (1,561) is more than twice as much as in the Maidan (668). The general death rate is nearly double (21 against 11·7). The situation is aggravated by the high percentage not only of infant mortality which is 50 per cent more than in the Maidan (152·5 against 97·8) but by maternal mortality which is nearly three times as much (31·5 against 10·8). The total number of deaths (17,632) in the Malnad in 1940 was much more than the total number of births (16,408). The one disease that is responsible for the largest number of deaths, whether in the Malnad or in the Maidan, is Malaria. It accounted for more than 34,000 deaths out of a total of 96,000 deaths in the year 1940; 9,000 of the deaths from Malaria occurred in the Malnad alone, and more than half the number of deaths in the Malnad were due to Malaria.

128. The main crops of the Malnad are rice and areca. They are, as a matter of fact, the only crops in Tirthahalli and Nagar Taluks which are in the heart of the Malnad and which receive the highest rainfall. Rice is a crop which must be cultivated by the indigenous population and so is areca in a large measure, though it may require seasonal labour from below the Ghats. The decline in the indigenous population would, therefore, seriously affect the agricultural production in these two taluks. The population in the Nagar Taluk which was 44,000 in 1881 is now 33,000 and that of Thirthahalli which was 57,000 is now 55,000. The area under rice, we find, is reduced from 62,000 acres in 1920-21 to 56,000 in 1937-38 and that under areca from 9,400 in 1930-31 to 9,100 in 1937-38. Other crops peculiar to the Malnad are coffee, tea, cardamom and pepper and

they are responsible for large immigrant labour. None of these is grown in the Shimoga or Nagar Malnad. They are confined to the Kadur District and Manjarabad and Belur Taluks in the Hassan District. Tea and pepper are grown only in Manjarabad, Mudigere and Koppa; cardamom in these taluks and in Chikmagalur; and coffee in the above four taluks and Tarikere and Belur. The prosperity of these taluks depends, therefore, as much on the state of these commercial crops and their prices, as on the state of the staple crops, rice and areca. There are now less than 400 acres of pepper in the whole region. The planting of tea was taken up in the year 1915 and now covers 4,000 acres. The area under coffee was the highest in the year 1882-83 with 145,000 acres. It is now 100,000 acres. Competition from other markets and violent fluctuations in prices have been largely responsible for the vicissitudes of coffee and areca. It has been calculated that coffee and areca do not pay if their price is less than Rs. 10 per maund. But there have been years in which prices were as low as Rs. 6-12-0 per maund of 25 lbs., in the case of areca, and Rs. 7-3-0 per manud of 28 lbs., in the case of coffee. The cost of cultivation of areca has also gone up with the growing dependence of the cultivator on outside labour and to some extent on the prevalence of *Koleroga*, a disease peculiar to areca in the Malnad. Cardamom is the only crop that is sailing on the tide of prosperity. The area has grown from year to year, until it has now reached 22,000 acres.

129. There are no industries and manufactures in any of these Malnad Taluks and the only important trading centres are Tirthahalli, Sagar and Shiralkoppa which form the gateway to the Malnad. The prosperity of Malnad Taluks, therefore, depends upon the state of agriculture, the prices realised for agricultural produce and the number, education and health of the indigenous population. The contribution of the Malnad to the wealth of the State is not commonly realised. We are led away by the phenomenal development of irrigation under the Cauvery and its tributaries. 46·4 per cent of the area under rice, 59·8 under arecanut and 15·7 under sugarcane, and the entire area under coffee, tea, cardamom and pepper are in the Malnad. It is the forests of the Malnad and the Semi-malnad Taluks that produce the most valuable timber and sandalwood. The area of the Malnad as compared to the Maidan may be small and the population of the Malnad smaller, but it contributes very largely to the resources of the State and we cannot afford to neglect it or its people. Another mistaken impression is that the Kolar Disitrict has the largest area irrigated by tanks and that it is the tanks in this and in the other districts in the Maidan generally that require the greatest attention. As a matter of fact, it is the Shimoga District that has the largest number of tanks and the largest area irrigated by tanks, the Kadur District taking the second place. It is unfortunate that the cropped irrigated area in the Malnad Taluks of these two districts has been generally declining from decade to decade.

130. The decrease in the population has resulted in the cropped area in the Malnad diminishing; and as the area under non-food crops has increased, the reduction under food crops is much more than the general decline. The area under rice has fallen from 1·85 lakhs to 1·72 lakhs acres, all the taluks contributing to this decrease—some in a larger degree and some in a lesser. It is only Manjarabad that has increased its non-food crops while retaining the area under food crops. Koppa, Narasimharajapura and Sringeri have suffered a severe set back both under food and non-food crops. All the other taluks are alike in showing an improvement under non-food crops and a worsening under food crops. It is the same story in the case of the Semi-malnad Taluks—a decline in the total cropped area and an improvement in the area under non-food crops, showing that the food crops have had to make way for the non-food crops. The area under rice and ragi have gone down in all the taluks—except rice in Chikmagalur and Shimoga.

131. These facts show how natural conditions like hills and forests, and an excessive rainfall as in the Malnad, can bring about a diminution in population, and how a diminishing population in its turn can affect the prosperity of the country by reducing production, especially in food crops. It must be remembered that only a sixth of the cultivated area in the State is irrigated and of this irrigated area more than two-fifths is in the Malnad. The Shimoga District alone contains 2·47 lakhs acres of irrigated land out of a total of 10·57 lakhs for the State; the Kadur District contains another 1·23 lakhs and the major part of this area is under paddy. It would be a calamity of the first magnitude if production of such a large area were reduced, because of a dwindling population. This problem faces us only in the Malnad. This is an instance of a scanty population being itself the cause of making it scantier. A vicious circle is created —Malaria reduces the population and a reduced population makes it more and more difficult to fight Malaria and the encroachment by the jungle and wild beasts. A dense population on the other hand, can withstand the ravages of Malaria. Bengal is the most malarial as well as one of the most densely populated Provinces. In spite of the large number of deaths from Malaria, the very density of the population not only keeps up the numbers but actually adds to them, the increase in the last decade being more than 20 per cent. That the Malnad also can be conquered has been demonstrated by the rise of the town of Bhadravati—in what was part of the jungle—and in the new colony at Jog that is springing up. But nature will yield only to determined action and not to half-hearted measures.

132. Cultivation in the Malnad requires large capital and labour and has given rise to large landed proprietors on the one hand and class of agricultural labourers on the other. There is no room there for the small land-holder who owns and cultivates his own land. The labour problem was not so acute formerly as

there was a system of serfs attached to the lands, and the landlords looked upon these serfs as more or less members of their families. The famine of 1878 compelled the landlords and the serfs to shift for themselves and this resulted in the migration of the labourers. It was found difficult later on to get them back to the lands they had left. The human tie too had been severed and could not be restored. The development of the Maidan has also reacted on the Malnad by retaining to itself the labour population, formerly migrating to the Malnad. There is even now a seasonal migration of Maidan labour to the portion of the Malnad bordering on the Maidan. But the Malnad more to the west has to look to South Canara and North Canara for its labour. The improvement of communications, too, has brought problems in its train. It has increased the wants of the people, and helped to drain away money from the Malnad for being spent outside the area. The money economy, which has gradually replaced the barter system, has given rise to the problem of the indebtedness of the Malnad raiyats, which has increased alarmingly since 1911.

133. Apart from certain natural disadvantages—like the encroachment of the jungle and the prevalence of disease,—history has played its part in eclipsing the importance of the Malnad which was once the cradle of Kannada culture. It is rich in natural resources which await development. Electricity and the Railway are only just making their appearance. The Forest Industries and Tile Factories,—to mention only a few examples,—are yet to be started. The depopulation of the Malnad has to be arrested if agriculture is not to suffer further. The indigenous population has to be protected from the ravages of Malaria and other diseases; and their woefully low standards of life—in food, clothing and shelter—have to be improved. The large landed proprietors have to realise their kinship with the labourers, as their fore-fathers did, and spend much more of their time and money in the Malnad than in the City. Some arrangement should be made to create an agency with adequate powers, whose sole business will be to improve the Malnad. That the measures already undertaken are inadequate is proved by the fact that though the need for improvement was recognised more than three decades ago, the main object, namely, checking the decline of population has not yet been achieved.

134. The most important needs of the Malnad are improvement in health and communications, the development of the forests, the establishment of industries and an organisation to import and settle labour under good living conditions. A sum of Rs. 2 crores has been provided in the Plan for spending on these 15 taluks in the next five years, at the rate of not less than Rs. 2 lakhs per taluk per annum on health, communications and housing, leaving a sum of Rs. 50 lakhs, or 10 lakhs per annum to be spent on forests, industries and labour organisation for the Malnad in general.

APPENDIX 14.

Extracts from the note furnished by Mr. N. Madhava Rao, B.A., Additional Secretary, Economic Conference.

The Malnad (and Semi-Malnad) comprising a fifth of th State in area has a population of less than a tenth and it is als seen that the population is steadily declining in this area. Th main problem of Malnad is to check this tendency for th population to decline and to increase the density facto: Obviously Malnad with abundant natural facilities and materia resources offers far greater scope for development both agriculturally and industrially than Maidan. The difficulty in the way of a fuller utilisation of these resources is the lack of sufficient population. While Malnad would have its share of benefit under general planning, there is need for a comprehensive plan for the improvement of Malnad on a regional basis with particular emphasis on the problems peculiar to this area.

Though there is plenty of scope in the way of improvement of agriculture in Malnad the experience has been that it has never proved sufficient attraction to persons from outside to settle down in Malnad. Agricultural development beyond the capacity of the population is not also feasible and Malnad appears to be particularly susceptible to the operation of the law of diminishing returns. The improvement of agriculture and of allied rural pursuits beyond a particular point is dependant everywhere on development in other directions. The object is to attract a large population to Malnad which is obviously the crux of the problem. The best way of achieving it seems to lie in the direction of rapid industrialisation of the area. Now that the Jog Power Scheme will be completed shortly there would be need to utilise the abundant power to be generated. It seems preferable even from the technical point of view to find uses for it nearer home in Malnad than to deliver it over long distances.

If a policy of heavy industrialisation for Mysore is decided upon, the best location for the new industries would obviously be Malnad. Industrial development in Malnad is not new with the example of Bhadravati before us. Half a dozen, if not a dozen, big industries may be spread all over Malnad, Government either running them with their own agency or public ownership being encouraged with Government participation and control. A rapid survey of possible industrial development in Malnad would be the first step in implementing a policy of this kind. Such a policy has its merits as an independent proposition for the economic development in the State and would also have a special value for Malnad in facilitating and speeding up its improvement. In the wake of this there would be certain to come improvements in all directions, for example, better communications, sanitation and education facilities, etc., with

accumulative effect. Industrialisation is bound to act as a catalyser for setting up progressive trends in motion for the general up-grading of economic life in Malnad. Large scale industries logically imply big railway and road development programmes both of which will have the effect of opening up the country and benefiting and also facilitating the use of the outlet to the sea at Bhatkal. Such improvements are bound within a short time to react most favourably on the existing methods of production and conditions of life of the people, leading to general improvement of agriculture and other lines of economic activities. As the past experience shows, a direct solution of the problem is likely to present enormous difficulties while the plan of cumulative development through intensive industrialisation suggested here affords perhaps a more compromising line of attack. This does not of course mean that problems like improvement of Public Health, Agriculture, etc., should not be tackled simultaneously, since in any plan of Malnad improvement the emphasis should naturally be on these.

II

A Malnad improvement scheme was in operation some years ago but the deterioration of Malnad has not been thereby arrested. The problem is not perhaps insurmountable but if the present attempt is to succeed it has to be tackled differently. To put the matter squarely, the main question seems to be one of employment of a suitable organisation or agency for carrying out any plan that may be approved. The execution of any planned development has now become a whole time and something of a technical job for which the staff engaged on routine duties may be found not only inadequate but perhaps unsuitable also. Again and again the importance of adequate and trained personnel in working out development plans has been emphasised without which such plans are certain to end in needless waste of energy and funds. It is a matter of first importance therefore to evolve, as a part of the plan that is to be worked out, a suitable administrative machinery for its execution. In places where large improvement programmes of special nature are sought to be carried out, in addition to normal administration, it has been usual to constitute special bodies like Improvement Trusts, Sanitary Boards, etc. In Mysore City there is an Improvement Trust Board operating side by side with the Municipality. And similarly in Bangalore, Government have recently formed a Trust Board for the development of the City. A somewhat similar set-up is perhaps absolutely necessary for the execution of Malnad Improvement plan. The outline of such an organisation is suggested below for consideratton.

The Malnad and Semi-Malnad taluks are now distributed over three different districts, It would be necessary as a first

step to bring them all together under a single unit without interfering of course with the existing boundaries of districts or the jurisdiction of the departments of Government, the new unit proposed being *ad-hoc* and for the purposes of improvement and development only. An Improvement Trust Board for the entire area may be constituted under a special statute for a definite period on the analogy of the existing Sanitary or Trust Boards of the State. The question as to how the existing District Boards have to be fitted in arises for consideration at once. As the main object of the new Board will be not routine administration but development, there will be no conflict involved in the existing District Boards also continuing to operate in their respective spheres on the analogy of Trust Board *vis-a-vis* Municipalities. It seems, on the other hand that the District Boards would also have a part to play in helping the execution of the development programme and may even have to be strengthened in due course to take up the maintenance of items of improvement completed by the new Board. It may however be desirable and even necessary in the beginning to suspend their jurisdiction in certain matters such as development of roads, improvement of Public Health, etc., which require uniform treatment and to have these transferred temporarily to the new Board for intensive development in selected fields of activity.

The new Board may be made up of influential elements in the locality, by election and nomination, and with the power to co-opt, somewhat on the lines of Sanitary or Trust Boards. The Chairman of the Board may be an officer (of the status of a Minister, if need be) who will be appointed by Government for a term and will, on the executive side, be assisted by a small committee consisting of selected senior officers one each from the Agricultural, Public Works Department, Health and Industrial Departments. These officers should be in executive charge of the respective technical programmes under the general plan and will have under them subordinate staff for the purpose of actual administration. The Board will have its own office and office staff which may be located in Malnad itself in some central place. The entire special staff required may be recruited for the term of the Board and drawn either from the existing departments of Government or appointed directly, with the assurance in the latter case of being absorbed into permanent service on the expiry of the period. The Board should also have the power to engage technical experts for short periods as and when necessary.

The entire programme may be financed from a special fund which may be called " Malnad Development Fund ", to be administered by the Board under a separate Budget through a Special Finance Officer. The fund may be made up for the most part of annual allotments by Government and contributions

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etc., from Local Bodies and for the rest of any local cess which it may be empowered to levy, or receipts from working the remunerative part of the plan. Whether any portion of the existing taxes or new ones to be levied in the State may also be allotted to the Board or if any of these should be earmarked for particular lines of development are matters which may be decided later on under a convention to be evolved in this behalf. In addition the Board should also perhaps have the power to float development loans based on assets and to raise donations, etc., for particular objects.

The Board will primarily be responsible for initiating and completing each item of development of the programme and should ordinarily hand over such items thereafter for maintenance to the respective departments or Local Boards, unless Government otherwise directs in any particular case.

The Board and its officers should have sufficient legal powers and protection to enable them to get through the programme to work and it is possible that the existing rules and procedure as to recruitment. finance, calling for tenders, etc., may also require suitable modification.

In the first instance the general plan of development would be sanctioned by Government after approval by the Legislature. The Board should thereafter be free, through its staff, supplemented by such help from the existing departments and Local Bodies as may be required to carry out the programme without further interference. There will of course be the obligation to render periodical reports of progress and returns of expenditure to Government, the annual report of the Board being placed before Legislature along with its Budget. Each year's programme would be submitted in advance to Government and formal approval obtained for it before putting it into effect.

The Board to be constituted should as far as possible be fully autonomous in the matter of the execution of its programme and should have sufficient finance resource and adequate staff at its disposal to ensure the successful work of a regional plan of the kind in view.

APPENDIX 15.

(i) Note of the Director of Industries and Commerce.

Industries whether large or small scale are the means whereby the national income could be considerably augmented. It is not meant, that agriculture will cease to be practised. Agriculture will continue to be the main source of livelihood, and by scientific methods the yield would be increased. It must be noted however that development of industries making use of the available natural resources. would give a diversified employment to the people, incidentally putting more money into their pockets. The resulting prosperity would be reflected in the expansion of sanitary measures, improvement of communications, education, etc. Immigrants would be attracted and they may select to stay permanently instead of only as birds of passage as at present. The vicious circle would then be broken and the countryside would have a smiling aspect, in spite of, the continuous and heavy rains which are however, as already stated for a short season. It is therefore to industries large and small, that we should look for resuscitating this region.

In the Bombay plan, prominence is deservedly shown to cottage industries as ancillary to large scale industries. The former although not so spectacular have certain advantages and facilities for their easy and quick development. They do not require large capital or importation of heavy machinery which are not available. They do not mean concentrations of people in certain centres, bringing special problems of their own. The technique involved is in most cases readily available. The output as well as the raw material needed for these industries are of comparatively small bulk and could be easily transported. It is also to be noted that the number of workers benefited is proportionate to the capital spent much larger.

The department of Industries and Commerce has worked out a three-year plan for the development of Cottage Industries in the State. Among the 16 types of industries considered, special mention may be made of the following—1. Tile making, 2. pottery, 3. village smithy, 4. Mat weaving, 5. paper making, 6. button making, 7. Rattan industry and 8. Carpentry which are all specially suited to the Malnad, either on account of local demand or availability of natural resources or both. There are at present 45 centres in the State with a recurring expenditure of Rs. 72,000 and non-recurring Rs. 18,000. Of the 62 additional centres proposed, under the three-year scheme, half the number will be located in the malnad region. The total non-recurring expenditure is expected to be 7,15,000 and recurrring 5,21,000 spread over the three-year period. It is expected that at the end of the three-year period the realisations

may equal the recurring expenditure if we do not take account of establishment and training charges.

. The starting of the cottage industries goes hand in hand with the development of the large large scale industries as well for which the region may be suited on account of its natural resources. Among these must be mentioned paper mills, sugar manufacture, plywood factories, vanaspathi and saw mills (furniture making). Some two to three crores of capital will be required and it is desirable that the starting of these be left to private enterprise, Government providing necessary facilities and technical advice. The Government may even provide specialities such as taking shares in the capital, guaranteeing dividend for a fixed number of years and special concession rates for forest products and power, etc.

The industrialisation schemes outlined above if put into effect will naturally mean a general opening up of the country-side involving improvement of communications---Railways, Roads, etc. They would in turn provide remunerative work for a large number of people and encourage other industries.

Confining our attention to the cottage and small scale industries it will be necessary to have a central organisation with efficient staff to tackle the several day to day problems that will arise for solution. · It is incumbent also that the three-year plan should be sanctioned in general terms by Government. This will enable developmental work to proceed unimpeded by delays inevitable in receiving of individual sanctions and there would be no fear of lapsing of funds. The progress achieved may be periodically reviewed by the Malnad Improvement and Development Committee which should have powers similar to T.V.A. in U.S.A. This body would take note of work done and set up targets for future development, making necessary changes in the programmes as may be found desirable.

If the proposal of industrialisation meets with approval, the details of location of the several industries would have to be determined by consideration of the resources and other facilities available in the several parts of the Malnad. Possible locations are as follows—Paper manufacture between Shimoga and Sagar, Plywood at Sakleshpur, Fruit canning at Chikmagalur, Sugar Manufacture at Anjanapur, Vanaspati at Shimoga, etc.

The list of industries (large scale and small) is by no means exhaustive. Processing of food stuffs including dairy products, manufacture of essential oils, and industries connected with the exploitation of mineral would provide additional employment and deserve investigation. Roads and Railways will develop by themselves if the initial start is given by Government. Government should after investigation take up immediately certain areas promising industrially for putting up essential roads and railways.

(ii) Note of the Chief Engineer for Roads and Buildings.

(1) Lack of all weather good roads, particularly connecting places situated in the interior, is largely responsible for the backwardness of Malnad. The rainfall being heavy and continuous over a long period, most of the villages are cut off from each other. Many of the connecting malnad roads being unbridged and unmetalled, will become unfit for the traffic. There are only a few roads built and maintained from State Funds, that can be said to be at all trafficable during the rainy season; the other connecting District and Inter-village roads are passable, only during the summer months.

So the first item to be thought of for promoting the well being of the people of Malnad is to render the existing roads fit for all weather traffic by building bridges and metalling the surfaces and building more roads so that people can communicate more freely and spread out to undeveloped areas. Taking the three Districts of Shimoga, Kadur and Hassan, it is seen that out of the total areas in the three Districts which are respectively 4,048, 2,771 and 2,635 sq. miles, Malnad occupies in each of the above Districts 2,238, 1,801 and 686 sq. miles respectively. The mileages of existing roads in each of the three malnad Districts are 614, 618 and 198 miles respectively, To compare with the length of roads per 100 sq. miles, the corresponding figure in a developed maidan place like Kolar is found as follows (*Vide* Statement 'A').

Whereas in Kolar it is 41 miles per 100 sq. miles of area, in the Malnad area of Shimoga, Kadur and Hassan it is 28, 34 and 29 miles respectively. Of course, regarding population it requires no comparison at all, because the Malnad areas are very sparsely populated.

Regarding the proposal for developing the roads, the first thing to be taken up is to build bridges across major rivers, like the Tunga, Bhadra, Varada and others which now practically separate the areas on either bank for 5 or 6 months in the year of the rainy season. In the scheme of general post-war development of roads, provision has been made for the construction in these Districts of the following major bridges.

In Shimoga District, two bridges across Varada in Sorab Taluk,

KADUR DISTRICT.

One bridge near Hebbe across the Bhadra to give through communication from Narasimharajapur to Chikmagalur.

One bridge across the Tunga near Sringeri, connecting Jaipura and Chickmagalur—Koppa road connecting directly Sringeri which will reduce the approach to Sringeri by nearly 18 miles.

HASSAN DISTRICT.

(1) Bridge across the Hemavathi on Manjarabad-Kodlipet road.
(2) Another bridge across the Yagachi on Kottaya Hullibyle Road.

The approximate cost of these bridges is estimated to be about 3 lakhs each. It may be necessary to build a few more major bridges, *e.g.*, connecting Koppa with Mandagadde across Tunga.

Similarly, for minor streams which cross existing District roads in these Districts about 25 bridges are provided at a cost of roughly Rs. 40,000 each and it may be safely assumed that at least another 25 bridges in these areas across minor streams may have to be built, to give easier access by road. This item may cost about Rs. 20 lakhs.

Taking the surface of existing roads, it is seen that the total length of existing roads in each District, leaving out the main trunk roads, will be 276,304 and 129 miles and to metal them and make them fit for the traffic during heavy rains, may cost in each District, Rs. 16,56,000, Rs. 18,24,000 and Rs. 7,74,000.

Regarding the main roads which are now handling heavy traffic and lead to Railway Stations and trade centres and ports below Ghats, it would be necessary to concrete these roads to make them safe for heavy vehicular traffic and also minimise the heavy cost and labour involved in their maintenance.

The list of such roads proposed for concreting is given below —

SHIMOGA DISTRICT.

	Miles.
Bhadravathi—Shimoga—Sagar and on to Honnavar road = 12+45+23 ...	77
Shimoga—Thirthahalli—Agumbeghat and on to Malpe or Mangalore road ...	55
Ainur to Hosanagar and Nagar and Hyderghar ghat road and on to Coondapur ...	50

KADUR DISTRICT.

Kadur—Chickmagalur—Mudigere and Charmudighat road (25+40) and on to Mangalore ...	65
Koppa to Agumbe road ...	32

HASSAN DISTRICT.

Hassan—Saklespur—Marnahallighat road and Mangalore ...	46

Total length that may be concreted in the three Districts is roughly 325 or 350 miles at a cost of Rs. 60,000 per mile, total cost amounts to Rs. 210 lakhs.

Regarding new roads: From the statements furnished by the Executive Engineers and District Board Presidents, the following roads in each District are proposed and classified as follows:—

Minor District Roads.
Village Roads.

This list is, by no means, exhaustive and as part of the next ten-year programme we may have to build at least 384 to 584 miles to make up a total of 1,000 miles to 1,200 for all the Malnad Districts.

Approximate cost of these roads, as per programme for the next ten years would amount to Rs. 102·9 lakhs as detailed below roughly estimated under the following heads:—

	Length.	*Cost.*
		Rs.
District Road ... } Taluk Road ... }	210 miles at 20,000	42,00,000
Village Road ...	406 miles at 15,000	60,90,000

Railways.—Malnad is very badly served by Railways. Excepting the Shimoga—Arasalu—Sagar line recently constructed there is no railway communication at all in Shimoga District. In Kadur District, even now the headquarters of the District, *viz.*, Chickmagalur is not connected by Railway. Malnad areas in this, as well as Hassan Districts have also no Railway communication. But the development of railways will involve heavy expenditure and for giving results, it takes much longer time than roads.

The line connecting Kadur and Chikmagalur probably may be taken up very early as there has been much agitation for it and money has been collected. And as a long time programme the following lines may be mentioned:—

		Miles.
1.	Hassan—Belur—Chickmagalur and connecting Kadur ...	36
2.	Balehonnur—Aldur—Koppa ...	50
3.	Koppa—Thirthahalli Hosanagar and Sagar 15+22+22 ...	59
4.	Chord connecting Thirthahalli and Shimoga.	36
5.	Koppa—Narasimharajapura and Tarikere (converting the existing tramway into metre gauge) ...	...
6.	Hassan—Saklespur Manjarabad—Mudigere and on to Aldur and Chickmagalur ...	70

Of course, these are only proposals which may have to be thought of, not necessarily in this short time of ten years. But ultimately the Railways will open out the Malnad, as nothing else will and would attract Industrialists and other people from

outside to settle down in these undeveloped areas. The total length proposed looks a large figure, being 300 miles the cost involving being very heavy, as much as 6 crores.

Regarding the construction of these Railways, it may be stated that all these lines should be of metre gauge; but they may be built on the lines of the Hill Railways like the one connecting Coonur to Ooty, in which it is seen that the ruling gradients are as steep as 1 in 25. By this method, the length of the Railway will be reduced and thereby also the cost of construction.

For the immediate future, only the line from Kadur to Chickmagalur may be possible. If the roads are properly reconditioned and repaired and new roads built and maintained in good condition the traffic of the Malnad for the next ten years can be efficiently handled by a properly organised motor Transport Service for both passenger and goods and worked under Government control.

Next to communication, the other important engineering facilities that would be of help in the development of malnad area are:

Housing, water supply and drainage and irrigation and supply of electric power.

Taking the last item first, after the Jog Power Scheme is completed, it would be largely helpful to the malnad, to connect all remote places in the interior with distribution lines. Power may be availed of, for small cottage industries, like weaving with power looms. And power can also be availed of by the villagers, for raising during summer months, short term irrigated crops like Ragi, pulses, onions, coriandar and vegetables, etc., making use of the plentiful supply in many of the streams by pumping. Such crops are not at all grown in the malnad parts now. Electric lighting, of course, will make the malnad houses a little more cheerful, and will add to the sense of limited comforts of the villagers in the Malnad.

Housing of course, is a difficult problem. Although there are some very good houses built in interior of malnad by the well-to-do, the ordinary houses lived in by the working and middle class are not very sanitary and comfortable. Some type designs suited to the malnad will be prepared by this Department in due course.

Regarding construction, it may be stated that the average malnad raiyats being very poor, Government will have to give all facilities like the supply of sawn scantlings, tiles and other building materials at nominal prices or at cost price, by opening depots in suitable places, if anything like a comprehensive improvement is to be realised in this direction.

As regards water supply, even now all District headquarters and 29 taluk head-quarters have got both protected water supply and also some surface drainage and further schemes

are being prepared to provide good water supply and drainage to the remaining towns.

Taking the Malnad proper, the total cost of the scheme is about Rs. 29,00,000.

If any large sized villages have to be taken up, it will have to be thought of individually, as part of the further programme.

In some special isolated cases of villages, which require good protected water supply particularly during summer months where all sources of water and any stagnant water is made use of, it may not be possible to give relief in the general scheme of water supply. In such cases, some special portable filter will have to be devised and made available to the villages through the Village Panchayet and some organisation of prominent people of the village for the benefit of all in the village.

In some quarters, it is held that establishment of heavy industries in malnad areas will promote the well being of the people. As a supplement to or an alternative to this it may be suggested that Government may undertake the starting by clearing of large areas, which are now under Forest, of practically no value to the State or to the Public and forming these areas into contour terraces of long lengths though of limited width, with a view to convert the present useless forests into valuable paddy fields. The rainfall is always plenty and with the application of machinery employed in the process of not only forming the terraces and also of ploughing and other operations it might be possible to develop units of 100 to 1,000 acres or more for growing paddy. This will go a long way to meet the keenly felt deficit of paddy in the State, as a whole, Later on, when such farms are got into working order, they may be distributed at the rate of 10 to 20 acres per family and thus new settlements may be formed of people that may be attracted by the formation of such lands. Obviously, the work involved in the conversion of the Forest into paddy flats being heavy and beyond the capacity of ordinary villagers it is well-worth being taken by the State or by Joint Stock Companies, which may be promoted with the aid of Government; of course, the richer types of forest which supply timber may not be taken up for this kind of conversion.

To work out the above scheme for developing malnad, it is necessary to bestow undivided and uninterrupted attention under a single administrative head, who may be a Development Commissioner of the status of the Head of a Department. So far as the schemes of this Department are concerned, cost of the schemes outlined above amounts to Rs. 4·36 crores and this will require a special circle under the charge of a Superintending Engineer with 3 Divisional Officers of the Status of Executive Engineers and necessary executive and clerical staff to be formed. Some special inducement by way of granting special allowances and quarters may have to be given to enlist voluntary and enthusiastic co-operation in a specially difficult field like this.

STATEMENT A.

Length of roads per 100 Square miles.

Sl. No.	Name of District	Total area of District in Square miles	Length of roads in miles	Area of Malnad portions	Length of road in malnad portion	Length of roads per 100 square miles
1	Shimoga ...	4,048	937	2,238	614	28
2	Kadur ...	2,771	764	1,801	618	34
3	Hassan ...	2,635	822	686	198	29
4	Kolar ...	3,157	1,287	Typical	Maidan.	41

Abstract of Malnad Improvement Scheme.

Sl. No.	Particulars	Shimoga	Kadur	Hassan	Total	Cost	Total cost
						Rs.	Rs
1	Reconditioning to existing roads excluding the State Fund Roads	276 miles.	304 miles.	129 miles.	709 miles.	6,000 per mile.	42,54,000
2	(a) Construction of major bridges	2 Bridges.	2 Bridges.	2 Bridges.	6 Bridges.	3,00,000 per bridge.	18,00,000
	(b) Construction of Minor bridges	...	...	...	50 Bridges.	40,000 each.	20,00,000
3	Cement concreting of important State Fund Roads.	*Vide*	details in	the report			2,10,00,000
4	Constructing (a) Minor District Roads (12' width).	...	...	...	210 miles.	20,000 per mile.	42,00,000
	(b) Village roads (9' width)	150 miles.	136 miles.	120 miles.	406 miles.	15,000 per mile.	60,90,000
5	Providing water supply system and proper drainage to Malnad parts.	12,00,000	9,00,000	8,00,000	29,00,000	...	29,00,000
6	Establishment charges]	...	...	...	...	...	13,95,000
	Total ...	...	...	...	...	...	4,36,39,000

STATEMENT B.

Existing Roads in Shimoga District.

Sl. No.	Name of Road	Length of road in miles
	State Fund Roads.	Miles.
1	Bangalore—Honnavar Road	66
2	Tarikere—Agumbe Road	7
3	Shimoga—Harihar Road	25
4	Shimoga—Agumbe Road	58½
5	Ayanur Hosanagar—Balebare Road... ...	52
6	Shimoga—Sorab—Sirsi Road	63
7	Sagar—Bhatkal Road	43
8	Jog—Bhatkal Road	12
9	Aralgodu—Henneghat Road	6
10	Gersoppa—Falls Road	2
11	Pool Road of Jog Falls	2
	District Fund Roads.	
1	Kumsi—Harnahalli Road	2
2	Ananthapur—Thirthahalli Road	37
3	Ananthapur—Hosanagar Road	16
4	Ananthapur—Shikaripur Road	4
5	Sagar—Benhatti—Kallarghat Road	15
6	Gadekoppa—Kallurkatte Road	10
7	Nagar—Kodachadri Road	2
8	Thirthahalli—Hulikal Road	17
9	Hosanagar—Kullurghat Road	11
10	Kodachadri Hills Road	11
	Marketing Roads.	
1	Shiralkoppa—Hirekerur Road	9
2	Shiralkoppa—Hangal	21
3	Sagar—Shiralkoppa Road	12
4	Koppa—Thirthahalli Road	10
	District Fund Roads Maintained by Civil Agency.	
1	Sorab—Hosabale Road	6
2	Ulavi—Kadasur Road	10
3	Jade—Thavanandhi Road	18
4	Chandragutti Road	10
5	Nagodi—Kodachadri Road	2
6	Karur—Thoramane Road	2
7	Sagar—Keladi Road	4
8	Sagar—Ikkeri Road	2
9	Sagar—Bhimanakone Road	4
10	Sagar—Maradavalli Road	5
11	Sagar—Varadamula Road	3
12	Sagar—Khandaka Road	2
13	Ramachandrapur Mutt Road	3
14	Mumbar—Humcha Road	9
15	Kowledurga Road	4

Sl. No.	Name of Road	Length of Road in miles
		Miles.
16	Araga Road	2
17	Bhimanakatte Road	2
18	Tudur—Bekkanur Road	13
	Total ...	614

Existing Roads in Kadur District.

	State Fund Roads.	
1	Hassan—Chikmagalur Road	7
2	Banavar—Belur Mudigere Road	10½
3	Kadur—Mangalore Road *via* Bhund Ghat ...	45
4	Chikmagalur—Tarikere Road	34½
5	Santhaveri—Kalhatti Road	4½
6	Vastara-Koppa Road	49
7	Balebonnur Magundi—Balur Road	18½
8	Kotigehar—Kalasa Road	27
9	Tarikere—Mangalore Road *via* Agumbeghat ...	50
10	Koppa—Balagadi Road	2¼
11	Road from Marthole to Gangamula	14
12	Bababudan Hill Road	37
13	Kalhatti Peeta bridle path	9
14	Bridle paths on Kathatti hills	10
	District Fund Roads.	
1	Anemahal Mudigere Road	4½
2	Magadi—Javagal Road	14
3	Shimoga—N. R. Pura Road	10½
4	Mudigere—Byduvalli Road	8
5	Chikmagalur—N. R. Pura Road	38½
6	Handi—Alur Road	4⅛
7	Mudigere—Belur Road	8
8	Petta Road	4
9	Sollebyle—Sringeri Road	5½
10	Sollebyle—Balehole Road	18
11	Narve—Nagalapur Road	3⅜
12	Narve—Sringere Nemmar Road	6
13	Sringeri—Kigga Road	4
14	Nemmar—Heggan Road	6
15	Magundi—Kalasa Road	16
16	N. R. Pura—Mandagadde Road	10
17	N. R. Pura—Balehonnur Road	20½
18	Balagady—Badagi Road	3¾
19	Koppa—Thirthahalli Road	5½
20	Koppa—Kalaspur Road	6
21	Hariharpur—Kunamakki Road	4
22	Begar—Sringeri Road	2
23	Mullaiyanagiri Bridle path	2
24	Kalhatti—Kurkanmatti Road	7
25	Herur—Basarikatte Road	7
26	Angadi—Devarinda Road	5

Sl. No.	Name of Road	Length of road in miles
		Miles.
27	Marasanige—Samse Road	12
28	Hariharpura—Chavalmane Road	8½
	District Fund Roads Maintained by Civil Agency.	
1	Joldal—Hosahalli Road	2½
2	Chokkanna Estate Road	4
3	Uppalli—Hirekolale Road	4
4	Thorananmavu—Joldal Road	6
5	Dubla Estate Road	2
6	Handi Baskal Road	5½
7	Seethalaiyanagiri Road	3
8	Dantarmakki—Hiremagalur Road	2½
9	Siddaragavi Road	3
10	Loop Road linking Handi Baskal Road ...	4
11	Kalhatti Anethirtha Road	
12	Kesarakoppa—Sompura Road	
13	Ballalarayanadurga Road	5
14	Shanivarasanthe Road	5
15	Chikagrahar—Kudregundi Road	10
	Total ...	618
	Existing Roads in Hassan District.	
	State Fund Roads.	
1	Bangalore—Mangalore Road	30
2	Banavar—Belur Mudigere Road	14
3	Hassan—Chikmagalur Road	6
4	Sukravarasanthe—Subramanya Road, Second section.	19
	Marketing Roads.	
1	Bage—Belur Road	13¾
2	Anemahal Mudigere Road	12⅛
3	Manjarabad—Kodalipet Road	15
4	Arehalli Biccode Road	5¼
5	Alur—Kundur Road	8¼
6	Bharathavalli—Alur loop Road	3
7	Mudigere—Belur Road	12
8	Arehalli—Tholalu Road	7
9	Sukravarasanthe—Subramanya Road, First section ...	14
10	Hanabal Devarinda Road	8
11	Palya Be'agodu Road	1
	District Fund Roads Maintained by Civil Agency.	
1	Ballupet—Kenchammanahosakote Road ...	3
2	Hanse—Sukravarasanthe Road	3
3	Hoskote –Eachala Beedu	3
4	Kadamane—Maranahalli Road	8
5	Hethur—Kerodi Road	7
6	Anemahal Byakaravalli	5½
	Total ...	198

STATEMENT C.

List of Proposed Village Roads in Shimoga District.

Sl. No.	Name of Road	Length of road in miles
		Miles.
1	A road from Shimoga—Jail Road to Ainur in Kumsi Taluk and running *via* Gajjanahalli, Tyajavahalli and Ramnagar.	13
2	A road from Chordi to Hitla *via* Kalmane in Shikaripur Taluk.	8
3	A road from Belagavi to Shiralkoppa, Hirekarur Road near Chickerur and running *via* Talagunda, Bilki and Sirehalli.	12
4	A road from Sorab to join Shiralkoppa—Hanagal Road *via* Udri near Hirekabbur.	12
5	A road from Sagar to Tagarthi *via* Brahmanamanchodu.	8
6	A road from Bhimanakone to join Hosanagar Anandapur Road *via* Purappamane.	11
7	A road from Ramachandapur Mutt to Araga *via* Shikaripur.	15
8	A road from Arasalu to Konandur *via* Thalale ...	13
9	A road from Yedur to Megaravalli *via* Gubbaga and Sirnahalli.	10
10	A road from Begavalli to Hanagere *via* Tyandur—Yedehalli—Sidagaru—Kikkeri and Garga.	12
11	A road from Devangi to join Tudur, Bekkanur road near Kattehakkalu *via* Ingaladi and Kalmane.	5
12	A road Basavapatna to join Doddaghatta *via* Chirdone.	6
13	A road from Madenur to Sagar ...	25
	Total ...	150
	List of Proposed Village Roads in Kadur District.	
1	Road from Vastara—Koppa—Sangameswarapet *via* Kandya—Shivase connecting C. N. R. Pura Road at Honar.	18
2	Road from Tarikere—Amrithapur and on to Hunsaghatta.	12
3	Devarinda to Byduvalli—Mudigere Road ...	4½
4	Hiremagalur—Hosakote and on to Magundi Javagal Road.	10
5	Aldur to Vagar Estate and on to Kotigehar—Balehonnur Road.	12
6	Road from Kalasa to Kornadu temple ...	4
7	Road from Kalasa to Kurnad Megal ...	4
8	Kotigehar—Hosapur Road with Saragodu ...	12
9	Road from Begar to Nemmar ...	9
10	Road from 46th mile of Tarikere—Mangalore Road to Sampigekhan.	6

Sl. No.	Name of Road	Length of road in miles
		Miles.
11	Koppa to Gunavanthi	5
12	Narasimharajapur to Sokke Road	2
13	Konankere to Chickmagalur	...
14	Hiriyur to Pura	7
15	Sakrepatna to Javagal	9
16	Kavadi to Nelagadde	9
17	Aldur to Magundi	12
	Total ...	136
	Minor District Roads.	
1	Bettadamane to Angadi and on to Banakal ...	13
2	Byneheddal to Mallandur connecting Byneheddal Road with Chickmagalur N. R. Pura Road.	4
3	Improving Begar Kalmane Road ...	2
4	Uppenahalli Byneheddal Road to Hirekalalu Village ...	2
5	Formation of Road from Dubla bridge between Basirikatte and Dubla Estate.	6
6	Road from Mottole to Gangur ...	2½
7	Road from Avathi to Basathi and on to N. R. Pura Kudarasthe.	5
8	Saramahalli to Bilupada to connect Sringeri Harihar-pura Chavalmane Road.	8
9	Kadur to Hosadurga Road to join Begar *via* Imsamanahalli.	3
10	Muthinakoppa to Kuduregundi ...	14
11	Vittalapura to Settikoppa ...	9
12	Kadur—Hosadurga Road *via* Thuruvenahalli ...	18
13	Road from Tarikere to Bukkambhudhi *via* Rangapura bridge Kutinamadu Joldihalli.	14
14	Opening a road from Somapura to Bhadravati *via* Karakuchinavathi bridge.	15
15	Muthodi—Jagara—Kemmangundi Road *via* Kolagavi-Mellumlvathi—Bothenkan estate.	15
16	Mothudi Jagara Pandravalli to Kemmannugundi Road.	20
17	Jakkanahalli to Mallandur *via* Makod Arathi—Kavagur Bagamane.	12
18	Lakya to Magadi *via* Hoskote ...	12
19	Kalasa Samse Road ...	10
20	Hirebyle Bilagadde Kalmane to join Magundi Balehonnur Road.	14
21	Hanabal Devarinda Road *via* Byduvalli ...	12
	Total ...	210

List of Proposed Village Roads in Hassan District.

Sl. No.	Name of Road	Length of road in miles
		Miles.
1	Road from Thagare on Belur Biddode Road to Tholalu.	5
2	Hagare to Madihalli Shandy maidan ...	1½
3	Bennur to Malalur Sukravarasanthe ...	6
4	Gendehalli to Malalu Sukravarasanthe ...	5
5	Hagare to Hadagur ...	5
6	Gangur to Javagal ...	6
7	Chattanahalli to Kodihalli ...	3½
8	Bilagadde to Kenchammanahoskote *via* Hale Belur ...	6
9	Arehalli road branching off at Sundekere estate to Biccode Road at Belagodu.	5
10	Sundekere estate to Biccode Road *via* Udevara and Betta—Gudda.	7
11	Bangalore—Mangalore Road to Udevara *via* Gulagala-le Mosvalli, Honnavara Bilagadde.	5
12	Saklespur to Mudigere Road *via* Hebbasale ...	1½
13	Anemahal to Sukravarasanthe *via* Arakere and Bykaravalli.	5
14	Anemahal to Sullakki *via* Janakere and Ebbadi ...	4
15	Heggadde to reach Mudigere Road at Agalbatti *via* Kumbaradi and Nadahalli.	4
16	Hethur Road to reach Kodilipet Road at Hadgeri *via* Ummathur Mavanur and Hemathi.	3
17	Saklespur pump house to Mudigere Road to reach at Dabbegadde.	5½
18	Saklespur to Hebbasale to Heggadde ...	7
19	Road from Karjhavalli to Madabalu ...	2
20	Bellur to Nallur ...	1½
21	Nallur to Maddanayakanahallipur ...	2
22	Nallur to Bettadahalli ..	2
23	Hassan Saklespur Road at Chakrathirtha river to Magge new Road.	2
24	Dabbegadde to Arehalli ...	6
25	Belagod to Karjuvalli ...	8
26	Arehalli to Udevara ...	9
27	Madabalu to Alur ...	8
	Total ...	120

(iii) List of roads and bridges proposed for inclusion in the programme of Malnad Improvement Scheme by the President, District Board Shimoga, in his Letter No. C. 425—45-6, dated 14th August 1946.

BRIDGES.

Sorab Taluk—

1. A bridge across Varada river in Sorab-Chandragutti road.*

Shikarpur Taluk—

2. A bridge across Kumadavati river near Kalmane.
3. A bridge across Kumadavati river near Esuru.
4. A bridge across the river near Kalmane in Kammardi-Kalmane Road.

ROADS.

1. Bhadravati to Lakkenakoppa *via* Siddapur to connect Shimoga-Narasimharajapur road—7 Miles.
2. Haramaghatta to Bikkonahalli—8 Miles.
3. Hutta to Tadasa and Bhadravati *via* Hebbandi, Holekoppu and Dodamaghatta.
4. Mugudthi to Bellur to join Shimoga-Hosanagar road at Gowjur—8 Miles.
5. Humcha to Koduru—7 Miles.
6. Devangi to Ingladi, Kattehakkalu, Sidagar and Mrughavadhe—10 Miles.
7. Hakkare to Madenur.
8. Begavalli to Mrughavadhe from southern side of Begavalli—6 Miles.

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*(Included in the Chief Engineer's list.)

(iv) Note by the Chief Engineer for Irrigation in Mysore on Malnad Improvement and Development.

The Maland parts of the State cover an area of about 6,200 square miles and comprise of 16 taluks (including Sringeri Jahagir) in the districts of Shimoga, Kadur and Hassan. The entire tract is a region of hill and dale, forests and plantations and rice slopes with very heavy rainfall. Naturally therefore, the Malnad is predominently an agricultural country and the vast bulk of the population consists of agricultural and labouring class.

The topography of the Malnad region has been responsible for a large number of tanks, big and small, and the Shimoga District has the largest number of tanks and the largest area irrigated by tanks. The detail statistics of the number of Major and Minor tanks in the several taluks are furnished below:—

District	Taluk	Major	Minor
Shimoga ...	Sagar ...	100	1,102
	Nagar ...	12	1,143
	Tirthahalli ...	52	1,386
	Sorab ...	161	1,152
	Shikarpur ...	3	75
	Shimoga ...	71	671
	Kumsi ...	35	245
Kadur ...	Mudigere ...	8	309
	Tarikere ...	26	257
	Chikmagalur ...	42	744
	Koppa and N-R. pura ...	21	843
	Kadur ...	26	93
Hassan ...	Saklespur ...	15	1,014
	Belur ...	78	1,189
	Alur Sub-Taluk ...	32	587
	Total ...	689	10,810

With a view to keeping up these tanks in proper working order, special Tank Restoration Ranges have been sanctioned by Government. At present there are two Ranges one at Tirthahally and the other at Sorab in Shimoga District, and one Sub-Division at Chikmagalur in Kadur Division. Proposals for another at Hassan are under consideration. The programme of restoration work is being carefully planned on the requisition from the Revenue Department and is worked out systematically; 312 minor tanks with an assessment varying from 100 to 300 have been restored to end of 1944-45 in these taluks against the total number of 2,505. The policy is intensively pursued so as to benefit both the raiyat and the State. A programme for restoring about 4,000 tanks in a period of about ten years is

before the active consideration of Government. Such an accelerated programme promotes the economic condition of the malnad parts as well.

The principal crops grown in Malnad are paddy among the food crops, and areca, coffee and cardamom among the commercial crops. To maintain and improve the economic condition of the raiyats in spite of certain natural disadvantages like the encroachment of the jungle and the prevalence of diseases, Government lost no time in launching fresh irrigation schemes in these areas so as to overcome the deficiencies in respect of water supply. Of these irrigation works, mention may be made of the Bhadra Right Bank Channel from the anicut across Bhadra, the Anjanapur Reservoir across Kumudvati in Shikarpur Taluk. These two works which have cost Rs. 29·8 lakhs bring under irrigation an extent of 20,869 acres of which 19,371 acres are already brought under irrigation. An estimate amounting to Rs. 1·6 lakhs for the extension of Anjanapur Right Bank Channel to irrigate 2,000 acres has been sanctioned and the work is in progress.

The five-year programme of Irrigation Works approved by Government in their order of October 1944, includes 8 Irrigation Projects in the Malnad and these are estimated to bring under fresh irrigation an area of 54,332 acres at an estimated cost of Rs. 99·63 lakhs. Of these 8 projects, 4 have already been sanctioned by Government and are under execution.

A statement of these irrigation schemes is noted below :—

		Estimate. Lakhs.	*Area irrigable. Acres.*
1.	Tunga Anicut ...	57	27,000
2.	Anicut across Kagehalla ...	3·67	1,500
3.	Do Seegehalla ...	1·75	1,432
4.	Left bank channel from Bhadra Anicut.	10 85	8,000
5.	Tank near Budigere ...	2·12	500
6.	Dandavathi Reservoir ...	11·00	8,000
7.	Ambligola Reservoir ...	9·49	6,900
8.	Hirehalla Tank ...	3·75	1,000
	Total ...	99·63	54·332

It will not be out of place to mention that every one of these major irrigation works, provides for :—

(1) Improvement of communications.
(2) Medical help ;
(3) Water supply and drainage ;
(4) Antimalaria Measures ;
(5) Colonisation scheme for the labour class ;
(6) Education ;
(7) Formation of health units and starting Agricultural Farms ;

These various amenities both during execution and after completion of the schemes do promote in a very large measure healthiness and the economic conditions.

The launching of the Jog Power Scheme will give a fillip to the development of various industrial enterprises in Bhadravathi and elsewhere and will contribute largely towards the development of the rich natural resources of Malnad. Antimalaria measures are undertaken for Hiriyur, Belur, Koppa, Mudigere and Sakrepatna. Surface drainage schemes have been taken up in Hiriyur, Koppa, Saklespur and Chikmagalur. Underground drainage schemes are being got up for major taluk headquarters and protected water supply is given to all the above mentioned towns and these are being extended to other parts of the Malnad also.

It will be of interest to refer here to the Bhadra Reservoir scheme at Lakkavalli in Tarikere Taluk. This project which has been worked up in considerable detail, constitutes a work of magnitude entailing both development of power and irrigation. It is proposed to inaugurate the scheme towards the close of this year. A grant of Rs. 5 lakhs has been made available for this work in the Budget for 1946-47. An undertaking of this great project costing Rs. 890 lakhs would be responsible, in considerable measure, towards strengthening the economic prosperity and the agricultural development of Malnad.

In conclusion, it is imperative to remark that unless conditions of "service" in the Malnad parts are improved, no tangible progress could be expected in any direction. The organisation will fail for want of sufficient incentive and drive in the staff, as a consequence of disappointment. It is, therefore, absolutely essential that the Departmental staff should be given (1) Special Malnad Allowances both in respect of pay and conveyance allowance and Travelling allowance, and (2) Rent-free quarters with lighting and water supply. These are the major issues that require a very careful consideration at the hands of the Government if our schemes in respect of "Malnad Improvement and Development" are to be successful.

(v) Note of the Director of Geology in Mysore.

The preliminary Geological Survey and Mineral exploration of the Malnad areas were started some 50 years ago soon after the organisation of the Geological Department in 1895. Since then various parts of this region have been investigated from time to time in considerable detail resulting in the location, so far, of the following valuable minerals :—

Gold, manganese, iron ores, chromic iron ore, titaniferous ores, high calcium and dolomitic limestones, bauxite, clays, kaolin, quartz, ochres, corundum, mica, soapstone and a few other minor minerals.

The following deals briefly with the previous mining history and possibility for further development of each of the minerals in the Malnad, noted above :—

Metallic Minerals

Gold.—Indications of gold have been found in the Kudurekonda-Palavanhalli areas, Honnehatti, Jalagargundi, and several other places in the Malnad. Most of these deposits were extensively prospected in the early years of this century ; but they turned out, in the circumstances prevailing then, to be disappointing. The results of those early investigations indicated, however, that some of the areas like the Kudurekonda-Palavanhalli zone, need further intensive work before they could be condemned as unprofitable. The Department took up in December 1940 the Palavanhalli zone for such intensive work ; but had to suspend its operations soon after, since it was unable to secure any of the machinery needed for deep underground mining. It is under contemplation to resume the work at Kudurekonda and Palavanhalli in the near future.

Alluvial Gold.—Small deposits of alluvial gold are found sporadically distributed along the banks of the river Tunga-Bhadra and its tributaries, mainly in the Honnali Taluk, and also along the banks of the Bhadra near Lakkavalli. In 1913 some investigations had been conducted by the Department to test the possibility of working these deposits on a commercial scale but the results were not found encouraging. Later again in 1940, when the gold value had risen considerably higher, further investigations were conducted at some of the spots in the Honnali Taluk, to ascertain if any of these alluvial deposits are worth exploitation, either on a commercial scale or at least on a cottage industry basis. The result of those investigations indicated that the average distribution of gold in the alluvium is too poor to pay for large scale extraction ; but some of the patches with slightly better concentration may, however, be attempted to be worked on a small scale cottage industry basis.

Manganese.—The principle deposits of manganese ores are found in the neighbourhood of Kumsi and Shankargudda. Soon

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after their discovery by the Department, in the first decade of this century, the deposits were taken up for large scale mining by the Workington Iron and Steel Company (later United Steel Company) who raised nearly 630,000 tons during the 20 years of their active mining of these deposits. The deposits are almost exhausted now and what little of the ore is still left has been reserved for the Mysore Iron and Steel Works.

There are a few other smaller deposits of low grade manganese ores in the neighbourhood of Bikonhalli, and near Hosur, Itigehalli and other places in the Shikarpur Taluk, and also in some parts of the Thirthahalli Taluk. The former is also reserved for the Mysore Iron and Steel Works; and though the latter deposits have been under prospecting licenses several times it is highly doubtful whether they are capable of being worked on a large scale.

Iron Ores.—The existence of large quantities of iron ores in the Bababudan hills had been known to the Department since its organisation; and attempts were made, for the first time in 1907-1908, to find out the quantities of ore easily available for smelting. In 1916, detailed prospecting of the deposits near Kemmangundi were taken up to ascertain the precise distribution of the various grades of these ores and estimate their quantities. Based on the results of these investigations and after obtaining expert opinion, the Iron Smelting Works were started at Bhadravati, which came into operation in January 1923. It is under comtemplation in the five-year programme to extend considerably the operation of the Iron and Steel plant; an d to ascertain if sufficient ore is available for the purpose a detailed investigation of the iron ore deposits, still in reserve in the Ridge and Scarp deposits near Kemmangundi, has been taken up recently.

Apart from the iron ores in the Bababudan hills, somewhat less extensive deposits are found at Chattanhalli (from which the Smelting Furnace was being fed for some time after its starting) near Gavaja, Belandur and other parts in the Shikarpur Taluk and several other places which, at present, are not of much importance.

Chromic iron ore.—Deposits of low grade chromite and chromic iron ore containing not more than 28 per cent chromic oxide, are found at Baranhalli, Jhandimatti, Bandre and a few other places in the Malnad. These are not of much importance at present.

Titaniferous iron ore.—Deposits of titaniferous iron ores are found in the Devarnarsipur hill, near Bhadravati; and from recent investigations it has been ascertained that they would yield about 65,000 tons containing about 10 to 13 per cent TiO_2. There are also a few deposits of similar ores near Ubrani in the Tarikere Taluk. These ores may be utilised in the near future for the production of titanium steels.

Non-Metallic Minerals.

Limestones.—Extensive deposits of limestones had been located at several places in the Malnad, in the early days of the geological survey. Later delailed investigations have disclosed that much the larger portion of these are dolomitic or magnesian types, unsuitable for several of the purposes for which a high calcium limestone would be required. The deposits at Bhadigund, near Bhadravati, which are mainly of the high calcium type, are now being mined for the production of cement at Bhadravati. Recent surveys have disclosed a few more bands of much smaller extent, near Joldhal. It is under contemplation in the five-year programme of the Mysore Iron and Steel Works to double the present production of cement. Excepting as a flux in the Blast Furnace at Bhadravati, the dolomitic limestones have not been used for any other industrial purpose so far.

Bauxite.—Deposits of bauxite, with alumina content varying from 35 to 60 per cent, are found near Kemmangundi, Virupakshikhan and other places in that neighbourhood in the Bababudan hills. The deposits are estimated to yield bauxite of varying qualities, to the extent of about 200,000 tons, of which the high grade material containing more than 60 per cent alumina would amount to only some 5 to 6 thousand tons. These are not suitably situated for easy transport and their small extent and average low grade militate against using them for any industrial purposes.

Clays.—In addition to ordinary tank bed silts, there are several deposits of clays, fireclays, lithomarge, etc., in different parts of the Malnad. These have not yet been intensively investigated to ascertain for which specific industrial purposes each of such deposits is likely to serve.

Kaolin.—Though some deposits of good quality China clay had been discovered in some parts of the Koppa, Sringeri and Thirthahalli Taluks as sarly as 1916, they had not attracted any attention till recently on account of their situation, far in the interior. In 1940, the deposits in the Narasimharajpur and Thirthahalli Taluks were again intensively investigated by the Department, and have been estimated to yield from a quarter to half a million tons of kaolin, of various grades, likely to be found suitable for the manufacture of several ceramic and refractory products and also as a filler in the paper production.

Taking advantage of these investigations, a private organisation has come forward to set up near Thirthahalli, a washing and refining plant at an estimated capital outlay of Rs. 5 lakhs and to utilise the refined material for manufacturing cups, saucers and other ceramic products. The proposal, based more or less on the scheme which this Department had prepared in its five years programme, has been recently considered and approved by the Policy Committee of the Economic Conference.

Quartz.—Extensive deposits of white, vein-quartz, which would be suitable for making ferro-silicon, carborundum, silica bricks, etc., occur at several places in the Malnad, specially in the Shimoga and Sagar Taluks. In the Shimoga Taluks more than 1½ million tons occur at Bilikal betta near Bhadravati, and round about Jog the several smaller deposits are estimated to yield about 50,000 tons. It is under contemplation by the Mysore Iron and Steel Works, to utilise the deposits at Bilikalbetta for the manufacture of the above-noted products, at Bhadravati.

Ochres.—Some small deposits of impure yellow ochres are found near Kalasa (Mudigere Taluk) and other places in the Malnad, which have not yet attracted any attention on account of their situation, far in the interior.

Corundum.—Deposits of pink and ruby corundum associated with kyanite occur at Kadamane in the Sringeri Taluk, and near Melkoppa in the Koppa Taluk and near Agumbe. The Kadamane deposits have been several times prospected for ruby, but have not yielded any tempting results, so far. The material found, due to intricate fractures, fails to attain transparency and good colour and does not come up to the desired standard. Corundum from some of these deposits would, however, be found useful for abrasive and other purposes. Since the deposits are far in the interior, they have failed to attract the attention of the mining men.

Mica.—Small deposits of books of white mica occur in the Sringeri Taluk. These had been worked to some extent in 1910 and a quantity of 23,568 pounds of good rounds mined. Applications are being received of late to re-open and work these deposits.

Soapstone.—Deposits of soapstone occur near Saulanga, Kudli and Hoskoppa in the Honnali Taluk; near Kavaledurga in the Thirthahalli Taluk; and near Talguppa in the Sagar Taluk. These are all impure and coarse textured and will not serve the purpose for which the pure fine textured talc would be required. They may be used, however, for making cooking utensils, pans and other refractory household articles and also building stone suitable for carving. The deposits near Kavaledurga in the Thirthahalli Taluk, on recent investigation by this Department having been found fairly extensive, the Department of Industries and Commerce has been trying to induce the local quarrymen to mine them on a cottage industry basis and utilise the material quarried for making cooking utensils.

Among the other minor minerals, mention may be made of the handsome, green ornamental stone (fuchsite quartzite) which occurs near Belvadi in lands belonging mostly to Sringeri Jahagir. This is a small deposit which is rather valuable and will have to be carefully developed conjointly, both by the Jahagir authorities and the Government.

Summary and Conclusion.

Concluding I have to say that the activities of this Department for the industrial development and improvement of any particular area would naturally depend upon whether or not such area contains workable deposits of useful minerals. The results of investigations of this Department in the Malnad areas have disclosed, till now, deposits of more than a dozen varieties of economic minerals therein.

In the early days, this Department due to its being engaged mainly in the geological survey had hardly the time to guide the systematic development and suitable utilisation of the State's mineral resources. Consequently, the mining capitalists confined their attention to work only such minerals, and very generally only such high grade ores, which could be exported readily without further treatment. In this category, among the minerals of the Malnad, I have to place the manganese deposits, the better portions of which worked on an extensive scale for some 20 years—from about 1907 to 1930—have become almost completely exhausted. The Department at present is not only insisting and guiding the systematic development and mining of the mineral deposits, by frequent inspection, but is also trying its best to encourage the utilisation of the available minerals in local industries as far as possible.

Among the minerals in the Malnad, the best and the largest deposits of manganese ores being exhausted, there is no likelihood of reviving this mineral industry on a large scale, but some of the minor deposits will be worked to a small extent for purposes of the Mysore Iron and Steel Works.

The Iron ores are being mined at present to the extent of some 30,000 tons a year; and limestones, to the extent of 30,000 tons annually, both by the Mysore Iron and Steel Works.

Among the schemes which have already been prepared and included in the five years programme may be mentioned,—the extension of Iron and Steel production and also cement, to twice their present annual output which would involve the mining of the various raw materials needed, namely, iron ores and limestones, on a much larger scale than at present; and the scheme for setting up an industry for large scale mining and refining of kaolin at Thirthahalli, at an estimated initial outlay of Rs 5 lakhs. Further intensive investigations on some of the auriferous deposits in the Malnad, commencing with the Kudurekonda area will, in all probability, be taken up in the five years programme of work of this Department. The utilisation of some of the other minerals like quartz, ferruginous bauxite, limestone, etc., for refractory or electro-chemical industries is still under investigation and no definite schemes have yet been prepared regarding them.

(vi) Note of the Director of Agriculture in Mysore.

Malnad as a region of plantation crops has a special significance for Mysore. The coffee and the cardamom in the South and the areca-nut in the North have developed their own techniques of culture and afford some bright spots on the otherwise gloomy perspective of difficult communication, heavy rainfall, existence of malaria and the causes of depopulation. From the point of view of scientific works, observations on the cultivation of coffee were made long before the regular organisation of the agricultural department and latterly several improvements such as improved strains of coffee, control of diseases and pests, etc., have been introduced by the Agricultural Department.

1. One of the early investigations undertaken by the Agricultural Department on its organisation was that relating to the Koleroga of the areca palm. The problems relating to this crop were studied on the Marthur Farm which was recently closed, and on many holdings in the Shimoga and Kadur Districts which actually served as demonstrations. As a crowning success of the investigations, spraying came to be a regular part of the farm operations in the areca gardens. Similarly upon the starting of the Balehonnur Coffee Farm the coffee diseases were closely studied and the spraying of the estates advanced considerably. The supply of chemicals and sprayers amounts to several lakhs of rupees each year. These articles are not only supplied through the departmental depots in the Kadur, Shimoga and Hassan Districts but a number of credit co-operative societies have interested themselves in their distribution.

Malnad affords an example of what legislation can do to enforce agricultural improvement as in the case of the coffee stem borer campaign. As a result of the Pest Act the spread of the pest has been checked to a great extent and many coffee estates thus had per force to keep themselves in good condition.

2. On the Marthur Farm, so long as it operated, a number of experiments on paddy and sugarcane were also conducted; the silage made of forest grass on the Farm was one of the first demonstrations in the line and in the early days lessons in areca drying, ploughing with iron ploughs, etc., were given to the raiyats on that Farm.

3. Of about 8 lakhs of acres under paddy in the State, $2\frac{1}{4}$ lakhs exist in the Shimoga District and about a lakh in the Kadur District. Attention on this account has been bestowed on introducing improved varieties into the locality, keeping in mind the introduction of fine varieties as well, so far as possible. In pursuance of the arrangements of subvention and demonstration plots, a number of them have been allocated to the malnad taluks ever since the paddy improvement scheme was launched five years ago. In addition to this line of work, a Central Farm has been opened at Bikli in the Kadur District, and a farm has

now been proposed to be peeuned at Anandapuram in the Shimoga District. The value of supplies of seed and manure and other efforts in this direction comes to more than 3 lakhs of rupees a year.

4. Reference may be made to a number of activities at present on the programme. Subsidiary crops have been experimentally tried on the Balehonnur Coffee Station. As an offshoot, a cardamom station has been working in the Saklespur area for the past three years. The impetus given to Bee-keeping by introducing improved hives and starting a bee-keepers' co-operative society must be mentioned. On the borders of malnad a small farm for sugarcane and paddy has been working at Anjanapur and the cattle breeding station at Ajjampur belongs to the vicinity of, though not in the actual malnad.

5. That opens up a view of the malnad, and the semi-malnad, the problems of which are inter-related. The approaches to Malnad form a cordon round the actual hilly tract. This belt is the home of a variety of crops like sweet potatoes, wheat, coriander, etc. In fact in one of the tests last year potatoes were taken to as much of an interior as Sagar and indicated that it could succeed as a venture even there. The belt of land appeals as an area where industries can be located, the cattle farm at the one end and an implement factory (at Hassan) at the other end standing as examples. This throwing open of the border would lead to further solving the problems of the interior. In similar strain an agricultural school has been proposed to be located at Tarikere, for training of boys who would devote themselves to the improvement of the malnad.

6. This picture of the situation enables us to embark on further proposals.

(*a*) Paddy work has to be pursued further and considerably more attention bestowed regionally in the malnad. Though the term Malnad is used in a vague way, the malnad regions of Kalasa and Agumbe are different to those of Sagar, and of Shimoga. The paddy varieties that will suit best these areas should be evolved on regional farms. A special field staff should take up the work of demonstrating the value of manures on the lines indicated in our postwar Scheme No. 1. A farm for each malnad region will have to be provided.

(*b*) An experimental station for areca nut and the subsidiary associated garden crops should be opened. It is a pity that the Martur Farm was closed, though it may be said, that the situation of the garden in the Talaguppa flat country is not typical for all malnad say Agumbe or Yadur hobli. Considerable work has to be taken up in research on this crop, such as manuring, selection, processing, etc.

(*c*) Orange is an important crop of the malnad. For the last two years, the diseases attacking this crop have been studied as a co-ordinated project of the Bombay and Mysore

departments of agriculture. The observations have shown that more care should be bestowed on the cultivation of the crops also. To study all the problems connected with this crop, the institution of an orange experiment station is suggested.

(*d*) It is time that we think of having a Station for spice crops, such as nutmeg, cloves, vanilla, etc. Similar stations are existing in South India in Nellampathi Hills, Courtallum, etc. The nutmeg plants introduced by me in the early days in Sagar Taluk are seen to be in full bearing.

(*e*) The question of raising a subsidiary crop in our paddy fields in the malnad, at least in some areas should engage our attention. It is a common practice to grow greengram and blackgram in many of the paddy fields after paddy is harvested. The moisture that exists in the paddy field after harvest and the cold weather of the Malnad in December and January should be congenial for a crop like potatoes and onions, which are money crops.

7. Co-operative organisation for marketing of different products, useful as it is in all the localities, is all the more necessary in the malnad. Not only should this be viewed as a scheme for obtaining better price for the commodities, but against the background of natural difficulties, a combination of efforts is necessary to get things together. Organised movement in one form or another is seen among groups that have succeeded in this locality and co-operative organisation should be encouraged in a scheme of rehabilitation.

9. The following table shows the land that is left fallow in the malnad districts as compared with maidan districts.

——	Net area sown	Current fallows	Other uncultivated land excluding current fallows
	Acres	Acres	Acres
Bangalore ...	8,18,000	57,000	63,000
Kolar ...	6,49,000	1,00,000	95,000
Tumkur ...	9,09,000	2,66,000	3,06,000
Mysore ..	7,83,000	79,000	1,03,000
Mandya ...	5,48,000	44,000	49,000
Hassan ...	6,45,000	1,71,000	1,09,000
Chitaldrug ...	11,36,000	4,05,949	90,000
Shimoga ...	5,71,000	2,22,000	10,87,000
Kadur ...	4,42,000	1,08,000	1,23,000

This shows that land settlement has also to be pursued more intensively and in putting the proposal of settlement before young educated people funds have to be provided liberally and conveniences provided for them to withstand the natural hardships.

(vii) Note of the Superintendent, Veterinary and Animal Husbandry Services in Mysore.

In any future programme to be chalked out in respect of malnad improvement, the question of improving its livestock should receive a high order of priority, in consideration of its material contribution to the general health as well as the economic condition of the malnad raiyat, who stands very much in need of both of them. The density of cattle for every 100 human population in the malnad is 1·7 times that of the maidan and there are 21 cows for every 20 individuals in the malnad, as against 12 cows for every 20 human beings in the maidan. These figures are indeed striking, despite the fact that they are taken from the recent livestock census, which was collected soon after the appalling loss of cattle from a widespread epidemic of Rinderpest, which was particularly virulent for the malnad cattle, taking by far the heaviest toll among them. Nevertheless, even judging from the present figures it seems a " melancholy paradox " that the malnad bears the largest cattle density in the State, while the majority of the malnad raiyats are among the most undernourished people. This paradox stands out so prominently that it is unnecessary to stress the urgent need for action, however humble and insignificant it may appear in comparison with the vastness of the problem.

The problem of livestock improvement in the malnad as in any other locality will have to be tackled under the following four headings :—

(1) Breeding.
(2) Feeding.
(3) Management.
(4) Disease control.

1. Breeding.

There is no definite breed of cattle or as a matter of fact, any other species of livestock in the malnad, nor has any serious attempt been made either to understand the existing breeds or to introduce organised breeding for quality and for efficiency. The livestock in general represent degenerate type of animals of which the malnad giddas (cattle) stand out most conspicuously for their inefficiency as well as uselessness. They are short, stunted and exist mostly for production of manure than for any other useful purpose. The buffaloes seem to thrive well and are the chief source of milk, but succumb to early diseases. The malnad is not conducive to sheep rearing, but the rich and almost perennial vegetation obtaining there, offers excellent scope for the development of goats particularly of milk yielding types instead of the now existing comparatively uneconomical mutton types. Poultry in the malnad consists of indigenous breeds which are unproductive in the extreme. There are considerable possibilities for

introducing bee-keeping as a remunerative cottage industry and for developing the inland fisheries. If these species of livestock are developed on recognised lines, there is no reason why the malnad should not be rendered self-sufficient in respect of milk, milk products, honey, eggs and meat including fish which are foods of undoubted protective as well as nutritive value.

With his wonted reluctance to take any initiative towards modern methods of breeding and rearing, the average malnad raiyat contents himself with the stock that is available and resorts to their multiplication by promiscuous breeding. This is in short the fundamental reason for the degeneration of livestock in the malnad. It is therefore very necessary that Government should take the initiative in this direction and implement schemes of systematic development for grading up the existing livestock, by introducing adequate number of suitable types of stud animals and by eliminating the scrub or inferior males.

Hitherto attempts were made at improvement of cattle by introducing Amritmahal bulls as stud animals by supplying them at concession rates to the Village Panchayets and private owners. I regret to say that much headway has not been made in respect of the improvement of malnad cattle by this method, as the scheme itself is defective. In the first place, the Amritmahal bulls do not thrive well in the malnad and secondly the disparity between the size and build of malnad and Amritmahal cattle is too wide to expect any beneficial results. Attempts have also been made at introducing white leghorn breed of poultry for improving the malnad poultry, also not with any success, because of the unfavourable influence of the malnad climate on this breed. No attempt has been made to improve the goats and popularise bee-keeping. A re-orientation of the methods of improving malnad livestock is therefore indicated.

With the establishment of an independent department of Veterinary and Animal Husbandry Services in the State, with effect from 1st July 1945, much is being done to organise livestock breeding on modern lines throughout the State and the following schemes are either sanctioned and implemented or are under consideration of the Government.

(*a*) Starting of an Experimental Cattle Breeding Station in the malnad for grading up malnad giddas, with a view to ascertain which of the recognised improved breeds of bulls would account for the best results in the progeny under malnad conditions. This scheme is under the active consideration of the Government, having been recommended by both the Agricultural Board and the Finance and Co-ordination Committee of the Mysore Economic Conference.

(*b*) Starting of an Experimental Dairy in the Malnad for promoting successful dairy industry on lines best suited for malnad conditions. For this purpose, it is proposed to confine to the local buffalo as the most suitable dairy animal for the malnad

and improve its milk yielding quality by grading with Murrah or other imported buffalces. The scheme is also under consideration of the Government.

(*c*) Livestock improvement scheme envisaging the grading up of malnad cattle (cows and buffaloes) by providing suitable stud bulls of Scindhi and Murrah breeds respectively free of cost has already been sanctioned in G. O. No. A. F. 5233-43—A H. 123-44-4, dated 15th May 1945 and has also been implemented in the State including the malnad. Ten Scindhi bulls and eleven Murrah buffalo breeding bulls have already been supplied in the malnad areas under the scheme last year and it is proposed to supply 25 Scindhi bulls and 25 Murrah buffalo bulls during each of the next four years.

(*d*) Establishing a farm for milch goats in the malnad with Tellicherry breed of goats is under consideration of the Government. The object is to produce enough male goats for distribution in the malnad areas for grading up the local goats in respect of both milk and mutton.

(*e*) A scheme for starting a Rhode Island Red Poultry farm in the malnad is also under consideration of the Government. As the Rhode Island Red bird is better suited to the malnad than the other lighter breeds, white leghorn and black minorca, it is expected that the malnad would be able to raise birds of an utility breed providing better nutrition to the people.

(*f*) A scheme for taking up intensive Bee-keeping work by establishing more propaganda centres and distributing a large number of improved hive boxes at concession rates in the malnad is also submitted to the Government.

(*g*) A scheme for the development of malnad fisheries in the State has been sanctioned in G. O. No. A. F. 3171-3—Agri. 145-45-2, dated 1st May 1946. A fisheries division has already been established in Shimoga District and a survey of the varieties of fishes obtaining in the malnad, their spawning and other habits, as well as the introduction of improved fishes in the area are being studied.

2. Feeding.

The density of cattle in the malnad in relation to the area under cultivation is more than 1½ times that in the maidan. In other words, cattle are distributed at the rate of one cow or bullock to each acre under cultivation, whereas the fodder residues from at least five acres would be normally required for each animal for their useful existence. Further the main cultivated crop in the malnad is paddy and paddy straw which is the poorest of roughages is the only fodder that the animals get. The malnad raiyat is not used to cultivate any fodder crops for feeding his livestock, nor is he alive to the necessity of providing concentrates to them. The animals are generally allowed to feed for

themselves in the jungles and the owner is gratified at the manure that he gets from his livestock, in return for practically nothing that he spends on them. How can livestock improve under the circumstances? In order that what is true of mere numbers in regard to the livestock wealth of the malnad may also be justified by quality, the following considerations for providing more and better feeds to livestock should be taken up.

(*a*) Every malnad raiyat should be induced to set apart a portion of his landed holding for the cultivation of fodder crops exclusively for the benefit of his livestock. It is also worthwhile that at least till such time that the ignorant malnad raiyat realises the importance of such a measure, the Government should subsidise the scheme by providing him with free seeds and manure for the purpose.

(*b*) Concentrates such as groundnut cake, gingelly oil cake, cotton seeds, and horsegram should be made available in malnad areas for feeding cattle and adequate quantities of them stocked in all the co-operative stores and depots. It is also advisable to supply them at concession rates by allowing a subvention of 25 per cent or more on the market rates of such commodities.

(*c*) In view of the latest researches revealing that the alkali treatment of paddy straw renders the latter not only more palatable, but enhances its nutritive value by nearly 30 per cent, the question of erecting a paddy straw treatment plant as an adjunct to the Paper Mills, whose effluents containing alkalies may perhaps be profitably utilised for the purpose is under examination by this Department and a suitable scheme will be submitted to Government in due course. If this is workable, it will be possible to provide the malnad cattle with a more nutritious fodder and thereby help to improve their quality.

3. Management.

It is usual to find that in the Malnad villages the livestock are least cared for. A large number of animals are huddled up in an ill-ventilated building in the midst of unhygienic surroundings, resulting in impairment of their health as also their efficiency and loss through a variety of diseases. A considerable amount of propaganda will have to be done with usual demonstrations, impressing upon the malnad public, the necessity for providing suitable accommodation with proper flooring and drainage in better surroundings in order that their livestock should prove to be their benefactors. Construction of a simple, cheap and efficient type of cattle-shed in the malnad is being designed and a scheme will be submitted to Government in due course for introducing them in these villages.

4. Disease Control.

Provisions for the control of diseases affecting the livestock population of the malnad is quite satisfactory and has improved steadily from year to year. There were only 2 Veterinary dispensaries in the malnad during the year 1914 and the number has increased to 27 at present (1946). Each of these dispensaries is expected to serve on the average about 29,000 heads of cattle distributed over an average area of 216.8 square miles, as against 45,750 cattle distributed over 260.3 square miles of the maidan. Although the Veterinary aid in the malnad is quite satisfactory as compared with that of the maidan, more dispensaries have to be opened in the former, in view of greater susceptibilities of the malnad cattle to diseases and the difficulty of accessibility of the villages in the absence of proper roads and transport facilities. The Government have sanctioned a scheme for opening 105 Veterinary Dispensaries during the next 5 years under G. O. No. 4079-99—A. H. 95-45-3 dated 18th February 1946 and under this scheme 7 dispensaries have already been opened in the malnad during last year. Every endeavour is being made to provide 18 more dispensaries during the next four years, out of the number of dispensaries yet to be opened throughout the State. When these are established there will be roughly one dispensary for every 20,000 heads of cattle in the Malnad, as against one for every 30,000 heads in the maidan areas and this will be, in my opinion, quite adequate.

There is a large number of obscure diseases affecting the livestock in the malnad and schemes are under consideration of the Government for providing additional facilities for undertaking comprehensive investigation on these diseases with a view to ascertain their cause, treatment and prevention.

The particulars of capital and recurring expenditure for each of the Schemes suggested is indicated roughly in the Statement, under each of the five years programme of development.

Schemes Nos. 3 and 12 have already been sanctioned, forming part of general schemes sanctioned for the whole State and funds are also provided for implementing them. Scheme No. 7 is also sanctioned, but includes only Shimoga District for the present for which provision is made and provision will have to be made now for implementing it in Kadur and Hassan Districts.

Schemes Nos. 1, 2, 4, 5 and 6 have already been submitted to Government and are under their active consideration, having been recommended both by the Agricultural Board and The Finance and Co-ordination Committee of the Mysore Economic Conference.

Schemes Nos. 8, 9, 10 and 11 are new Schemes intended exclusively for the malnad.

The total cost for implementing all the 12 Schemes suggested above is approximately Rs. 3,39,950 towards capital expenditure and Rs. 17,87,680 towards recurring expenditure for all the 5 years as per marginally* noted details. Deducting the cost of Schemes already sanctioned and provided for by Government, the net total expenditure that will have to be sanctioned now for working these schemes during the next five years is estimated at Rs. 3,35,950 capital and Rs. 15,27,130 towards recurring expenditure.

	Capital	Recurring
I year ...	3,21,700	3,19,751
II year ...	10,750	3,40,826
III year ...	3,750	3,61,401
IV year ...	3,750	3,75,201
V year ...	...	3,90,501
Total for 5 years ...	3,39,950	17,87,680
Deduct cost of schemes already sanctioned ...	4,000	2,60,550
Cost to be sanctioned ...	3,35,950	15,23,130

Scheme for Malnad Improvement—Live-stock Improvement.

Sl. No.	Name of the Scheme	Probable place of location	Estimated expenditure for 5 years						Remarks
			1st year		2nd year	3rd year	4th year	5th year	Total	
1	Malnad Giddas Cattle Breeding Station.	Anandapuram...	Cap.	18,500	...	...	...	...	18,500	Scheme is under consideration of Government among the Post-War Schemes.
			Recur.	23,450	23,450	23,450	23,450	23,450	1,17,250	
2	Buffalo Dairy Farm ...	Shimoga District.	Cap.	98,000	3,750	3,750	3,750	...	1,09,250	Do
			Recur.	44,500	52,500	59,500	66,500	74,500	2,97,250	
3	Live-stock Improvement Scheme-Distribution of free bulls.	Malnad villages.	Cap.	...	...	...	...	...	...	Already provided in the Scheme sanctioned by Government in G. O. No. A. F. 5233-43—A. H. 123-44-4, dated 15th May 1945 and the scheme is already implemented.
			Recur.	15,000	15,000	15,000	15,000	15,000	75,000	
4	Form for Milch Goat breeding.	Lingadalli in Kadur District.	Cap.	30,000	7,000	...	...	...	37,000	Scheme under consideration of Government among the Post-war Schemes.
			Recur.	6,000	6,500	7,500	8,000	9,000	37,000	
5	Rhode Island Red Poultry Farm.	Hassan District.	Cap.	63,200	...	...	...	...	63,200	Do
			Recur.	25,076	25,076	25,076	25,076	25,076	1,25,380	
6	Bee Keeping development ...	Malnad villages.	Cap.	8,000	...	...	...	...	8,000	Do
			Recur.	12,000	12,000	12,000	12,000	12,000	60,000	
7	Fisheries Development in the Malnad.	Throughout Malnad.	Cap.	4,000	...	...	...	...	4,000	Scheme is already sanctioned in G. O. No. A. F. 3616-20—Agri. 78-42-8, dated 9th February 1945 and is operating in Shimoga District at present. It will be taken up in Kadur District during the following years for which funds have to be provided.
			Recur	4,790	9,400	14,100	14,100	14,100	56,400	
8	Cultivation of fodder crops.	Do	Cap.	...	...	...	...	...	...	Detailed scheme will be submitted-
			Recur.	50,000	50,000	50,000	50,000	50,000	2,50,000	
9	Subvention on concentrates.	Do	Cap.	...	...	...	...	...	...	Do
			Recur.	50,000	50,000	50,000	50,000	50,000	2,50,000	
10	Alkali treatment of paddy straw.	Badravati ...	Cap.	1,00,000	...	...	...	...	1,00,000	Do
			Recur.	25,000	25,000	25,000	25,000	25,000	1,25,000	
11	Subvention on model cattle sheds.	Throughout Malnad.	Cap.	...	...	...	...	...	...	Do
			Recur.	53,000	53,000	53,000	53,000	53,000	2,65,000	
12	Starting of Veterinary dispensaries in the Malnad.	Do	Cap.	...	...	...	...	...	...	The Scheme is already sanctioned in G. O. No. A. F. 4079-99—A. H. 95-45-8, dated 18th February 1946 and 7 dispensaries have already been opened during the first year of the Scheme. 5 Dispensaries will be opened during each of the 2nd and 3rd years and 4 during each of the 4th and 5th years under the Scheme.
			Recur.	11,025	18,900	26,775	33,075	39,375	1,29,150	
		Total ...	Cap.	3,21,700	10,750	3,750	3,750	...	3,39,950	
			Recur.	3,19,751	3,40,826	3,61,401	3,75,201	3,90,501	17,87,680	
		Grand Total ...		6,41,451	3,51,576	3,65,151	3,78,951	3,90,501	21,27,630	

VIII. Note of the Registrar of Co-operative Societies.

There were 85 Co-operative Societies during the year 1914-15. They had a membership of 4,745. Their total working capital amounted to Rs. 1,13,238. The number of societies has risen from 85 during 1914-15 to 436 on 30th June 1945. A Central Land Mortgage Bank was ordered to be formed at Bangalore in 1929 on co-operative lines. In the first instance, the area of operation of the Land Mortgage Bank at Bangalore was confined to the three Malnad Taluks of Sagar, Koppa and Saklespur and one maidan taluk of Tumkur District. The Land Mortgage Bank was registered on 25th November 1929 and it commenced its work from 1st December 1929. Gradually, the lending area of operations of the Land Mortgage Bank has been extended to all the Malnad Taluks except Hegadadevankote and Hunsur of Mysore District and the Sringeri Jagir in Kadur District. The question of extending the Land Mortgage Scheme to the above taluks also is under the consideration of the department. There are now 19 Land Mortgage Co-operative Societies in the Malnad. They have a membership of 2,078, with a paid share capital of Rs. 52,410. Their total working capital amounted to Rs. 4,32,836-10-9. They have built up a reserve fund of Rs. 6,105-0-1. The members have to repay a loan of Rs. 3,72,243-10-9 out of the loans borrowed by them from the societies. They have earned a total net profit of Rs. 5,792-1-8 during the year 1945.

The principal crops of Malnad are areca, coffee, cardamom, etc. In order to facilitate the marketing of the produce of the members and securing better prices to the members, marketing societies have been organised for the marketing of areca, cardamom, honey, and wax, etc. Among the marketing societies, special mention may be made about the Saklespur Cardamom Co-operative Society and the Shimoga Malnad Areca Marketing Co-operative Society.

The Cardamom Societies at Saklespur and Mudigere have a membership of 411. They have a paid up share capital of Rs. 13,064. Their total working capital amounts to Rs. 1,94,303. They handled 2,500 maunds of cardamom worth Rs. 89,620 and earned a net profit of Rs. 3,408 during 1944-45. The work of the Saklespur Society is annually on the increase. The question of re-organising the society with a view to help the growers in a larger manner is engaging attention.

The question of formation of an areca Co-operative Marketing Society which was under the active consideration of the department from a long time was solved in 1939 when the Malnad Areca Marketing Society was organised on 8th November 1939 at Shimoga. The area of operations of the said Shimoga Malnad Areca Co-operative Society extends over the Shimoga and Kadur Districts. It has a membership of 1,650,

of which 1,638 are individuals and 12 Co-operative Institutions. It has a share capital of Rs. 55,762-8-0 and has buil reserve fund of Rs. 11,981-12-0. During the year 1944-4 members lodged 84,870 maunds of areca with the socie advanced a sum of Rs. 12,80,041 during the year 1944-45 areca and its working resulted in a net profit of Rs. [illegible] The society has engaged agents to collect areca. It has arranged for the supply of Koleroga materials to its members at the several Government depots, the society undertaking to pay off the amount direct to the Government. It lends to its members on the areca brought to its godowns at 5½ to 6 per cent interest.

The Bee-keepers' Co-operative Society organised at Saklespur for the marketing of honey on 14th February 1940 has been working satisfactorily. It has a membership of 85 with a paid up share capital of Rs. 672. During the year 1944-45, it collected 15,412 lbs. of honey worth Rs. 13,359 and wax of 697 lbs. worth Rs. 1,660 and sold 8,777 lbs. of honey for Rs. 16,540 and earned a net profit of Rs. 1,361.

The following statement indicates the position of Co-operative Societies in the Malnad :—

1.	Number of Societes	...	436
2.	Number of Members	...	35,110
			Rs.
3.	Share capital paid up	...	9,33,389
4.	Deposits	...	9,44,056
5.	Reserve Fund	...	6.20,770
6.	Total Working capital	...	39,43,526
7.	Net profits	...	1,58,292

The question of organisation of multipurpose societies in suitable areas is also engaging the attention of the Department. The chief difficulty confronting the department in the matter of the development of the marketing societies is that relating to transport by road as well as by rail. I think that in the interests of the societies, it is necessary for Government to place a small fleet of lorries at their disposal during the areca season. Coffee has not yet been brought within the fold of Co-operative Marketing nor is it necessary just now as the coffee Pool is affording all facilities. But small growers do require the assistance of a well organised coffee marketing society. The matter will receive attention. The coffee marketing society should undertake not only marketing of coffee but also of the supply of coffee manure to the members. In the initial stages, such a society requires special help from Government.

IX. Note of the Chief Conservator of Forests in Mysore.

During the last thirty years, the department has extended the activities in the malnad considerably with a view to exploiting the malnad resources. The major items of developmental activities of the department are listed below :—

(*a*) Supply of fuel and charcoal to the Mysore Iron and Steel Works. As much as 1,75,000 tons of fuel are being extracted annually and by this means a basic industry is being sustained since 1920 ;

(*b*) Supply of bamboos to the Mysore Paper Mills, Limited. Eight thousand tons of pulpable bamboos are being made available annually ;

(*c*) The ever-green forests have been tackled for felling and by this the entire demand of the Electrical Department for transmission poles and a major part of the demand for railway sleepers are being met ;

(*d*) All the forests in the malnad have been brought under intensive exploitation and by this means the requirements of industries and the public in timber and other forest produce are being met ;

(*e*) In connection with the exploitation many forest roads have been laid out which have furnished communications to outlying villages ;

(*f*) The Match Factory established at Shimoga draws timber for match splints and boxes from the forests ;

(*g*) The Plywood Corporation with its factory at Bangalore is drawing its timber requirements for manufacture of plywood from the forests in Saklespur Taluk :

(*h*) Recently, a factory has been established at Bangalore for manufacturing laminated woods. The timber required for this industry has all to come from forests in the malnad ;

(*i*) Timbers for packing cases, bobbins, lacquerware all come from the forests in the malnad areas ;

(In other words, all industries requiring forest produce as raw materials have to obtain it from the malnad areas of the State.)

Measures which do not justify being pursued :—

The revision of the Malnad Raiyats' Privileges Rules has now been proposed. The need for the revision of the rules and modifications required are explained hereunder :—

1. In the post-war period, demands for supplies of timbers are likely to increase and a full satisfaction of these demands would be possible only if forests are properly conserved and wasteful indiscriminate fellings stopped ;

2. The removal of timber at favourable rates was provided for mainly with a view to encourage construction of tiled houses. This object has not been fulfilled ;

3. Our experience is that most of the concessions result in unsystematic and irregular fellings and bring about a destruction of the forest growth ;

4. The disparity between the rates prescribed under these rules and the present market value of timber is so great that it actually acts as an inducement to excessive fellings for private greed ;

5. The term cart-load is defined as equivalent of 20 c.ft. This definition was adopted at a time when the transport lines were as yet undeveloped. Now-a-days a cart brings in easily 50 c.ft. ;

6. The upper limit of provision of 50 cart-loads would be very high. Not even a heavily timbered house requires this large quantity of timber ;

7. The control over removals is nominal but it would be facilitated if the rates are fixed in terms of c.ft. This would be a more correct way of measuring timber..

For these reasons, the revision of the rules as indicated hereunder is suggested :—

1. Reclassification of the several varieties of timber into ' reserved ', classified and jungle wood to approximate to the classification adopted under the Rules for Management of District Forests.

2. Revision of the rates of seigniorage :—

The rates for reserved kinds to be equal to the rates prescribed for removals from State Forests and for other kinds to be 10 per cent less than that for removals from State Forests.

Progressively higher rates to be charged for timber of larger dimensions and the rates to be fixed for c.ft. and not for cart loads.

A number of requests for extension of these concessions to areas not defined as malnad are being received frequently. It is often very difficult to adjudicate upon these claims and it would be helpful if the committee were to consider and lay down the basis for classification of any area as ' malnad '.

3. Specific measures included in post-war development schemes relating to malnad improvement.

The schemes formulated do not specifically relate to malnad improvement. They envisage a general expansion of the forest resources of the province and malnad plays a large role in it in virtue of its climate, rainfall and favourable conditions for the growth of forests. While these development measures will make increasing contributions to the State revenue thereby benefiting the general tax payer, they will benefit the local residents in particular by affording to them remunerative employment and cheap and adequate supplies of forest produce in perpetuity.

The schemes formulated are :—

(*a*) Rehabilitation of over-exploited areas. The main object of this scheme is to convert the mixed natural forest into an even aged, pure artificial forest. Under this scheme, it is proposed to convert about 10,000 acres of forest into regular plantations within the next five years at a cost of Rs. 10,83,628.

(*b*) *Cinchona Cultivation.*—One hundred and fifty acres of plantation are proposed to be formed during the next five years at a cost of Rs. 2,11,985. This will strengthen the quinine resources of the State.

(*c*) *Extension of Communications.*—About 30 miles of roads are proposed to be formed in the ghat forests of the Kadur Division for facilitating their exploitation which had not been possible all these years. With the lay out of these roads, a much larger number of electric transmission poles than before can be extracted and this would indirectly help in extending distribution of electric power to outlying places.

(*d*) Quota allotted to the malnad forests in the schemes which are of general application throughout the State.

The only scheme which is of general application is that relating to the establishment of a central Sylvicultural Research Station. This does not directly contribute towards the improvement of the malnad except in so far as it helps to solve some of the forest problems peculiar to the malnad as for instance the problem relating to the regeneration of the evergreen tropical forests.

The other schemes which the department has in view are :—

(*a*) *The Production of Essential Oils—Cinnamon oil.*—Particularly extensive areas will have to be brought under cinnamon crop ;

(*b*) *Lac Production.*—The possibility of lac cultivation in some parts of the State either departmentally or with the assistance of private enterprise is under investigation ;

(*c*) *Formation of Soft Wood Plantation.*—To meet the growing volume of demand for timbers for packing cases, match woods, etc.

(*d*) *Saw Milling of Timbers.*—The use of portable saw mills to facilitate conversion of timber in forests and to prevent undue wastage.

These are yet under investigation.

So far as this department is concerned, no scheme or measure for the amelioration of the malnad raiyats can be conceived. Whatever measures are formulated, they would have only an indirect effect by providing a subsidiary source of income and thus assisting in improving the general economic condition.

(x) Note of the Director of Public Instruction on Education in the Malnad.

PRIMARY SCHOOLS.

Table P 1 shows the number of Primary Schools including Upper Primary Schools and New Type Middle Schools in the Malnad and Semi-Malnad taluks, the area and population served by each school, etc., Corresponding figures for the whole State given at the end of the table provide a basis for the comparative estimate of the conditions in the Malnad and Semi-Malnad taluks with those prevailing in the State. For further purposes of comparison with the Maidan, another table P 2 has been prepared giving similar details in respect of 10 Maidan taluks picked at random one from each District.

The number of Primary Schools that would ultimately be necessary in the State in order to bring all children between the ages of 6 and 11 to Primary Schools (*i.e.*, Under compulsory Education Act, 1941, when it will be introduced) would be 13,421 as stated on page 8 of the Scheme for the Post-War Development of Primary Education in Mysore. This would work out to a school for every 2·2, square miles and for every 546 of the population.

Taking both population and area into consideration the number of Schools that would be ultimately necessary in the taluks under Groups A, B and C is shown below:—

Name of Taluk	No. of Primary Schools at present	No. of Primary Schools that would be ultimately necessary to bring all pupils between the ages of 6 to 11 to Primary Schools
Group A.—		
Shimoga	168	215
Shikarpur	105	130
Alur	54	45
Chikmagalur... ...	138	221
Sringeri	16	18
Tarikere	120	173
Arkalgud	109	129
Sorab	114	152
Thirthahalli	86	160
Group B.—		
Sagar	84	226
Belur	104	152
Kumsi	29	54
Group C.—		
Periapatna	65	105
Hunsur	78	162
Heggaddevankote ...	102	229
Koppa & N-R. Pura ...	75	194
Hosanagar	49	151
Mudigere	69	138
Manjarabad	59	150

The scheme of compulsory attendance for enrolled children for which Rs. 1,70,724 (recurring) and Rs. 2,41.000 (non-recurring) was sanctioned in the year 1945-46, was introduced in 9 taluks in the State of which those in the Malnad and Semi-malnad were Chikmagalur and Shimoga.

The scheme is to be extended this year to 9 more taluks at a cost of Rs. 1,68,462 (recurring) and Rs. 2,65,600 (non-recurring) of which Belur and Sagar would be situated in the semi-Malnad and Malnad.

It would thus take 8 more years (calculated from 1947-48) for all the Malnad and semi-Malnad taluks to come under the

scheme, these taluks receiving their due share of attention along with other taluks of the State, though in the case of Kadur and Hassan Districts, the scheme would be covered in three and six more years respectively calculated from 1947-48.

Minimum Strength for schools in the Malnad.

While the minimum strength and attendance fixed for a maidan Kannada Primary School with one teacher are 25 and 15 respectively, those for a Malnad Kannada Primary School with one teacher are 15 and 10. Similarly for a two-teacher Kannada Primary School the strength and attendance in Maidan are 50 and 30 while in Malnad 30 and 20.

Lower minima are also fixed for strength and attendance of Government Urdu, Tamil and Telugu and Depressed Class Primary Schools and Aided Primary Schools in Malnad at 12 and 8 as against 25 and 15 in Maidan.

The Malnad and semi-Malnad Schools are at some disadvantage in the matter of staffing, on account of the fact that schools have poorer strength and therefore do not admit of more teachers being appointed in them.

At present, if the strength is 40 and above upto 75, in a single teacher Primary School, an extra hand is given. This limit will have to be lowered in the case of the Malnad Primary Schools. A strength of 30 and above, up to 60 may be taken as a fair standard for giving a second teacher. This measure will considerably enhance the efficiency of instruction in the Malnad Primary Schools.

The special localities allowance payable to teachers is at the rate of one anna in the rupee for salaries up to Rs. 50 the minimum allowance payable being Rs. 1-8-0. These allowances are payable not only in the Malnad but also in some other places considered unhealthy. Conditions of living in the remoter parts of the Malnad are very unsatisfactory especially for teachers transferred from the Maidan. The Special localities allowances payable in Malnad should be doubled as an incentive for service in the Malnad subject to a minimum of Rs. 5 per mensem per teacher. The upper limit of Rs. 50 for salary for receiving Special Localities Allowance is too low. It may be fixed at Rs. 75.

An important consideration is the provision of dwelling houses in the Malnad. A suggestion which may be tried in earnest is to prevail upon the Panchayets or private persons to build quarters for teachers guaranteeing a suitable rent. The rent that may have to be paid actually may be fixed at 10 per cent of the master's salary and in the interests of the teachers' regular

attendance and work at school it is well worth while to provide him with quarters near to school.

Middle Schools.

Table M 1 shows the number of Middle Schools in the Malnad and semi-Malnad taluks, the area and population served by each, etc. Corresponding statistics for the whole State given at the end of the table provide a basis for the comparative estimate of the conditions in the Malnad and semi-Malnad taluks with those prevailing in the State as a whole. For further comparison with the maidan, another table M2 has been prepared giving similar details in respect of 9 maidan Taluks picked at random from each District.

x x x x x

The number of additional Middle Schools that would have to be established in order to bring the following taluks to the present average condition of all the taluks of the State would be as shown below :—

		No. of additional Middle Schools to be established to bring the Taluk to the present average condition of the Taluks in the State considering area and population served
1.	Mudigere	...
2.	Manjarabad	2
3.	Hunsur	2
4.	Kumsi	1
5.	Alur	1
6.	Belur	2
7.	Periyapatna	2
8.	Hosanagar	4
9.	Heggadadevankote	6
	Total ...	20

The above table shows the number of Middle Schools that would have to be established as a first step in raising the educational facilities in these taluks to the average condition of the State.

Number of Middle Schools to be established under the Post-war Scheme.

It is estimated that 2,613 Middle Schools would be necessary to meet the increased demand for admission to Middle Schools consequent on the development of primary education in the State. This works out to one Middle School for every five Primary Schools.

Taking both population and area into consideration, the number of Middle Schools that would have to be established in the Taluks under Groups A, B and C is shown below :—

Name of Taluk	No. of Middle Schools at present	No. of Middle Schools that would be necessary at the end of the period of 13 years as a consequence of the completion of the plan of development of primary education	No. of Additional Middle Schools
Group A.—			
1. Sringeri ...	1	4	3
2. Shimoga ...	12	43	31
3. Chikmagalur ...	11	44	33
4. Tarikere ...	8	35	27
Group B.—			
1. Koppa & N. R. pura.	3	39	36
2. Sagar ...	6	45	39
3. Shikarpur ...	3	26	23
4. Arkalgud ...	6	26	20
5. Thirthahalli ..	5	32	27
6. Sorab ...	3	30	27
Group C.—			
1. Mudigere ...	5	28	23
2. Manjarabad ..	3	30	27
3. Hunsur ...	4	32	28
4. Kumsi ...	1	11	10
5. Alur ..	1	9	8
6. Belur ...	4	30	26
7. Periyapatna ...	2	21	19
8. Hosanagar ...	2	30	28
9. Heggaddevan-kote.	2	46	44
Total ...	82	561	479

The mere establishment of Middle Schools as shown above, will not be enough. Adequate facilities as regards scholarships would have to be given to enable pupils to maintain themselves in places where Middle Schools exist. On account of the greater distance involved in the Malnad, pupils may have to go a long way from their home to reach the nearest Middle School and unless Hostel or other facilities for staying in these places are

afforded, Middle School education in these areas may not progress in a satisfactory manner.

* * * * *

Malnad Scholarships.

Besides the backward and other scholarships available to all parts of the State, Malnad Scholarships are awarded to pupils in Middle Schools in the Malnad. The provision on this account was 750 until last year. This has now been doubled as shown below:—

	No. of Scholarships.	*Value P.M.*	*Total Amount*
		Rs.	Rs.
Middle Schools	50	3	1,500

The number of scholarships for pupils in Middle Schools in the Malnad may be enhanced still more. As a first step, the number of Malnad Scholarships in the Middle Schools may be enhanced from 50 to 200.

* * * * *

It is necessary to introduce the Scheme of Medical Inspection in all schools in the Malnad and semi-Malnad areas immediately.

Practical Instruction Classes and Schools.

Out of 60 Middle Schools in which Practical Instruction Classes have been introduced, the following Middle Schools for boys in the Malnad have these classes:—

MALNAD.

1.	Agumbe	...	Rattan
2.	Thirthahalli	...	Agriculture

SEMI-MALNAD.

1.	Basavanaballi	...	Carpentry
2.	Shikarpur	...	Weaving
3.	Shimoga (Main)	...	Carpentry
4.	Kumsi	...	Agriculture
5.	Periyapatna	...	Agriculture

Malnad is essentially an agricultural tract and it is very necessary that the future Malnad farmer should be well versed in the science and technique of this occupation. It is therefore

recommended that agriculture may be introduced as Practical Instruction subject in at least half the number of rural Middle Schools of the Malnad. In the urban Middle Schools however, Practical Instruction in the local cottage or other industries may be introduced. These Practical Instruction subjects will also provide to the pupils an appreciation of the particular occupation or trade.

In the smaller Schools, it may not be economic to introduce Practical Instruction unless almost all the pupils take up their subject. To stimulate a considerable number of pupils to take up Practical Instruction, 50 per cent of the Malnad Scholarships may be given to pupils who undergo Practical Instruction.

* * * * *

I therefore advocate, from the point of view of national efficiency in occupations, trades and industries and also in order to meet the real need of a large body of children who would like to be trained for some vocation or other, the establishment of vocation Middle Schools with the explicit objective of training them for the vocation, two-thirds of the school time being devoted to theory and practice of the vocational subjects. After this training the pupils should be able to enter their respective vocations and be competent and efficient earning members of the Society. The subjects of instruction should be those occupations, trades and industries that are prevalent in the locality. Agriculture, Blacksmithy, Metal work, Tailoring, Sericulture, Weaving, Lacquer-work, Carpentry, Dairy farming, Sheep-rearing, Leather work, Horticulture and Poultry-farming which are some of the vocations fairly prevalent all over the State, and one or more of these subjects may be selected for instruction in the Vocational Middle Schools.

If, as a result of the labours of the Malnad Improvement and Development Committee a few Vocational Middle Schools will be established in the Malnad, not only will a much desired reform in education be brought about, but a great step towards retaining children in school for three years longer and towards imparting to them vocational competency will have been taken.

Mid-day Meals.

Schools in the Malnad have a special claim for aid in the matter of providing mid-day meals to school children for the following reasons:—

1. As houses in villages are scattered over vast areas pupils have to come from long distances to attend school and they require to be fed at school during mid-day.

2. On account of uncertain weather in the rainy season pupils cannot go for meals to their homes.

About a fifth of the children in the Malnad have to have arrangement for mid-day meal. There were 59,640 children in Primary Schools and 7,031 in Middle Schools in 1945. Computing that the cost would be on an average Rs. 2 per month per child, of which only half may be met by Government the other half being borne by the local public, the total expenditure to be borne by Government would be Rs. 1,13,000, taking the schools to work for 200 days a year.

* * * * *

High Schools.

There are at present sixteen High Schools in the Malnad distributed by taluks as noted below :—

High Schools in the Malnad and Semi-Malnad Taluks.

Type of Schools	Malnad Taluks	Semi-Malnad Taluks
1. Government High Schools...	1. Thirthahalli ...	1. Shimoga 2. Chikmagalur
2. Municipal High Schools ...	1. Sagar ... 2. Koppa ...	1. Tarikere 2. Shiralkoppa 3. Hunsur 4. Arkalgud 5. Bhadravathi 6. Konanur
3. Aided High Schools ...	...	1. Mission Girls' High School, Shimoga. 2. Mission Girls' High School, Chickmagalur.
4. Private High Schools ...	...	1. Girls' High School, Shimoga. 2. National High School, Shimoga. 3. High School, Ajjampur

They are mostly of the academic type. While there is great need for increasing the number of such high schools, it should also be seen that a large proportion of high school students do get a certain amount of training in practical arts like agriculture, sericulture, mechanical shop and fitters work, electrical wiring and fitting, woodwork, weaving, etc., which are the subjects noted under group 'C' (practical arts) of the present high school curriculum. Training in these practical arts subjects given for 9 periods a week in the second and third year classes provides a certain amount of vocational bias or an appreciation of trades and industries to the pupils intended to be given for 9 periods a week but it will not impart vocational competency in these trades and industries. It is therefore necessary that vocational high schools should be established where about two-thirds of the time of the pupil is devoted to instruction in theory and practice of the vocation and a third of the time is given to cultural subjects so as to enable the pupil to be an intelligent earning and skilled member of society if he does not wish to proceed for higher studies as in the case of pupils of Vocational Middle Schools the necessity for which

has been explained. A detailed scheme of subjects and syllabuses in those subjects to be taught in the proposed vocational high schools are given in Appendix 2, the subjects selected for compulsory studies being English, Elementary Mathematics, Elementary Science and Elementary Economics and the subjects for trade and industrial training being—

1. Wood work with related mathematics and related science,
2. Building trades-houses.
3. Automobile mechanics,
4. Printing and book-binding,
5. Textiles,
6. Sericulture,
7. Agriculture,
8. Machine shop,
9. Electric wiring and lighting,
10. Manufacture of electrical goods,
11. Photography and allied trades,
12. Foundry and pattern making,
13. Dyeing and printing, and
14. Horticulture.

It is hoped that with this much of intensive training in the practice of the vocations and their related mathematics and science, the pupil will be able to enter the occupation with the competency which is required to make him a skilled worker, and if he has got the requisite ability, resourcefulness and grit, he can rise to positions of Foremen and Managers. It may be said in passing here that the report of the Central Advisory Board of Education on post-war educational development in India also contemplates high schools or two main types, namely, (1) Academic High Schools, and (2) Technical High Schools corresponding to the two types of high schools mentioned above.

It may be laid down as an estimate that there should be one high school for every 20,000 population. In U. S. A. there is one High School for every 5,200 population. About one per cent population may be expected, to begin with, to be in the High Schools in our country, in which case there will be an average of 200 pupils in a High School, academic or vocational. On this basis, there is need for fifteen High Schools in the Malnad and twenty in the Semi-Malnad. Fifty per cent of these High Schools may be of the academic type and the other fifty per cent of the vocational type. The vocational High Schools being costlier, on account of the need for providing costly equipment for teaching trade and industrial subjects and also on account of the necessity for employing technical men who will demand higher salaries, the public may not come forward to start them on any large scale. The Government will have to shoulder the responsibility of starting these vocational High Schools. The return for the money spent will accrue to the nation in the form of higher vocational competency of the future skilled workers and of foremen and managers in industry.

Primary Schools (including Upper Primary Schools which are now New Type Middle Schools.)

TABLE P 1.

Shows the number of Primary Schools in the Malnad and Semi-Malnad Taluks, their enrolment, the area and population served by each, etc.

Name of Taluk	Area in square miles	Population in thousands (Census 1941)	Number of Primary Schools		Area per Primary School	Population per Primary School	Number of pupils in Primary Schools for 1,000 population (males and females)		Number of pupils in Primary Schools per 1,000 total population
			Boys	Girls			Males	Females	
1	2	3	4	5	6	7	8	8	10
MALNAD TALUKS									
1. Sringeri (Jahgir) ...	43·2	9	15	1	2·7	566	74	52	64
2. Koppa ...	619·7	34	48	...	8 66	679	50	36	44
3. Narasimharajapura ...		17	25	2	...	...	...	...	...
4. Mudigere ...	431·5	43	67	2	6·25	627	45	28	37
5 Thirthahalli ...	480·2	55	85	1	5·6	640	73	43	59
6. Sagar ...	747·6	61	81	3	8 9	726	63	37	52
7. Hosanagar ...	530·8	33	47	2	10·8	673	56	29	43
8. Manjarabad ...	456·8	50	57	2	7·7	849	41	28	36
SEMI-MALNAD TALUKS									
1. Chikmagalur ...	638·1	83	132	6	4·6	601	83	53	69
2. Tarikere ...	472·5	72	114	6	3·9	593	86	42	64
3. Shimoga ...	528·1	104	153	15	3·1	620	88	63	76
4. Shikaripur ...	351·4	54	99	6	3·3	514	99	47	74
5. Kumsi ...	167·1	18	26	3	5·7	621	63	36	50
6. Sorab ...	444·3	55	111	3	3·8	482	83	36	61
7. Belur ...	388·8	67	100	4	3·7	644	66	35	51
8. Alur ...	108 8	22	53	1	2·0	407	97	44	71
9. Arkalgud ...	262·0	75	102	7	2·4	683	93	34	64
10. Heggaddevankote ...	749·6	64	98	4	7·3	631	69	25	47
11. Hunsur ...	408·7	75	72	6	5·2	957	63	29	48
12. Periyapatna ...	251·7	52	63	2	3·8	796	73	23	48
STATE ...	29,458	...	...	...	3 66	884	77	36	57

TABLE P 2.

Shows for purposes of comparison similar details in respect of ten Maidan taluks one being selected at random from each District.

1. Kadur ...	536·0	100	114	3	4·5	857	85	31	58
2. Chamarajanagar ...	475·9	147	123	2	3·8	1,176	57	27	42
3. French Rocks ...	203·0	64	56	4	4·0	1,289	65	23	44
4. Kunigal ...	382·4	111	127	3	2·9	858	81	22	52
5. Channagiri ...	466 5	92	136	9	3·2	636	92	39	66
6. Arsikere ...	485·9	118	126	4	3·7	908	76	31	54
7. Nanjangud ...	380·5	143	123	7	2·9	1,101	66	29	48
8. Maddur ...	240·0	102	106	3	2 2	935	66	19	43
9. Koratagere ...	259·0	65	82	1	3·1	788	74	27	51
10. Channarayapatna ...	415·0	110	112	6	3·5	937	76	28	52
STATE ...	...	...	...	...	3·6	884	77	36	57

TABLE M 1.

Number of Middle Schools in the Malnad and Semi-Malnad Taluks, the area and population served by each, etc.

Name of Taluk	Area in square miles	Population in thousands (Census 1941)	Number of Middle Schools		Area per Middle School	Population per Middle School	Number of pupils in Middle Schools for 1,000 population of		Number of pupils in Middle Schools per 1,000 total population
			Boys	Girls			Males	Females	
1	2	3	4	5	6	7	8	9	10
MALNAD TALUKS.									
1. Sringeri ...	43·2	9	1	...	43·2	9,064	29	10	20
2. Koppa ...	649·7	34	2	...	216·6	11,308	13	4·1	9·6
3. Narasimharajapura ...		17	1	...	...	...	...	...	...
4. Mudgere ..	431·1	43	5	...	86·3	8,657	8·4	4·2	6·5
5. Thirthahalli ...	480·2	55	5	...	96·0	11,000	13	2·2	8·1
6. Sagar ...	747 6	61	5	1	124·6	10,167	13	4·5	9·2
7. Hosanagar ...	530·8	33	2	...	265·4	16,360	4·1	1·1	3·4
8. Manjarabad ...	455·8	50	2	1	151·9	16,705	6·7	3·3	5·2
SEMI-MALNAD.									
1. Chikmagalur ...	638·1	83	8	3	58·0	7,546	18	9·7	14
2. Tarikere ...	472·5	72	8	...	59·0	8,971	24	2·9	14
3. Shimoga ...	528·1	104	8	4	44·0	8,683	27	11	19
4. Shikarpur ...	351·4	54	3	...	117·1	7,852	14	1·5	8·2
5. Kumsi ...	167·1	18	1	...	167·1	17,688	8·8	0·3	4·8
6. Sorab ...	444·3	55	3	...	148·1	18,407	9·1	0·8	8·1
7. Belur ...	388·8	67	3	1	97·2	16,738	6·1	2·0	4·1
8. Alur ...	108·8	22	1	...	108·8	21,745	6·9	1·7	4·4
9. Arkalgud ...	262·0	75	5	1	43·6	12,531	13·0	3·2	8·2
10. Heggaddevankote ...	749·6	64	2	...	374·8	32,182	3·9	1·1	2·5
11. Hunsur ...	403·7	75	3	1	102·1	18,669	8·6	1·4	4·9
12. Periyapatna ...	251·7	52	2	...	125·8	25,884	6·7	1·1	4·0
STATE ...	...	...	...	...	60·7	14,634	1·58	·42	1·02

TABLE M 2.

Number of Middle Schools in Maidan Taluks, the area and population served by each, etc., one Taluk being selected at random from each District for purposes of comparison.

1. Kadur ...	536·0	100	3	1	134·0	25,000	9·3	0·9	5·2
2. Channagiri ...	466·5	92	10	1	42·4	8,364	18	1·7	10·2
3. Holenarsipur ...	232·5	71	4	1	46·5	14,200	18	4·1	10·8
4. Koratagere ...	259·0	65	4	...	64·8	16,250	12	1·9	7·0
5. Krishnarajapet ...	353·2	101	7	...	50·4	14,300	17	1·1	5·8
6. Gundlupet ...	542·9	89	3	...	180·3	29,600	7·8	1·0	4·4
7. Holalkere ...	424·0	81	6	1	60·6	13,000	19	2·0	10·7
8. Anekal ...	192·6	77	5	...	38·5	15,400	20·8	1·3	11·0
9. Malur ...	265·8	82	5	...	53·2	16,400	15	1·96	8·7
STATE ...	...	...	...	...	60·7	14,634	1·58	·42	1·02

(xi) Note of the Chief Medical Officer, Women's Hospitals in Mysore.

Provision of one midwife to serve a population of 5,000.

In addition to the scheme of providing a midwife to each hobli, it is absolutely necessary that trained help during child-birth should be still increased. At present, 80 per cent of the women have no trained help during child-birth. The maternal and infant mortality in India is exceedingly high. To increase skilled attendance at child-birth, it is found essential that one midwife should be appointed to serve a population of 5,000. Even for one midwife for each hobli, it is necessary to increase the number of pupils for training.

At present, rural midwives are trained in eight district headquarter hospitals. Six scholarships of Rs. 10 each are attached to each institution. The district headquarter hospitals were declared as training centres for rural midwives with a view to train the required number to serve in their own districts. Even with the grant of these scholarships, candidates are not forthcoming. This is, probably, due to the inconvenience caused to the candidates coming from rural places in securing suitable boarding and lodging accommodation. The want of accommodation may drive these candidates to seek accommodation in undesirable places.

I am, therefore, of opinion that to train the required number of midwives, it is necessary that free boarding and lodging should be provided at each training centre by constructing Midwives' Quarters to accommodate ten midwives. These midwives will be employed in their own districts and must agree to serve Government for three years as they will be guaranteed employment after qualification.

Further, the existing arrangement of granting scholarships to six candidates in each institution, may be done away with and the number raised from 6 to 10. In lieu of scholarship, they may be paid Rs. 10 per mensem each as pocket money.

The probable expenditure will be as follows:—

		Rs.
I.	Non-recurring—	
	Construction of Midwives' Quarters in 8 Training Centres at Rs. 10,000 each.	80,000
II.	Recurring—	
	(1) Free boarding at (about) Rs. 15 per mensem per candidate for 80 candidates.	1,200
	(2) Pocket money at Rs. 10 each for 80 candidates.	800
	Total ...	2,000
	Deduct 48 existing scholarships at Rs. 10.	480
		1,520 per mensem
		or Rs. 18,240 per annum

* * * * *

The malnad taluk headquarter places noted in the enclosed list are without woman doctors for affording maternity aid to the women folk of the places and surrounding areas. In the interest of the development of the malnad areas, it is absolutely necessary that the places should be provided with women doctors and a ward of 6 beds for women with a labour ward should be constructed in these taluk headquarter places to increase maternity facilities.

List showing the Malnad taluk headquarter places without woman doctors.

I. HASSAN DISTRICT—(5).

1. Belur.
2. Arkalgud.
3. Alur.
4. Arsikere.
5. Manjarabad.

II. SHIMOGA DISTRICT—(5).

1. Kumsi.
2. Honnali.
3. Shikaripur.
4. Sorab.
5. Nagar.

III. KADUR DISTRICT—(Nil).

(xii) Note of the Director of Public Health.

Requirements Analysed.

Analysis of the existing health conditions in the malnad shows that the death rate is very much higher and the birth rate very much lower than in the maidan areas. The number of deaths among infants is exceedingly high and the number of deaths among mothers during child-birth is also very high. In order to show an improved state of affairs it will be necessary to show a decrease in the death rates and an increase in the birth rates.

If this is to be accomplished, it is necessary to analyse the causes that are responsible for the largest number of deaths and the age groups which suffer greatest and then select those conditions and age groups that are amenable easiest to scientific treatment.

When the deaths are further analysed it will be seen that the group that contributes the largest mortality is infants and mothers that die during delivery. Further, among the infants the majority of the deaths takes place before they are a month old and even here the largest number die within the first ten days after birth. If the infant mortality has to be reduced these neo-natal deaths will have to be reduced. The causes that are responsible for these are traceable not to any specific disease which they develop after birth, but the conditions in the mother which affect their growth in their intra-uterine life. An anæmic undernourished mother cannot possibly be expected to give birth to a healthy baby and children born of such mothers naturally cannot stand the viscissitudes to which they will be exposed immediately they are born into this world. In order to control this infant-mortality utmost attention will have to be given to the life of the child during its intra-uterine life or in other words, the mother will have to be looked after carefully during pregnancy. This care incidentally reduces the maternal mortality also, because, their death is most often due to their anæmic and enfeebled condition which makes them unequal to stand the strain of delivery. The anæmic condition of the mothers cannot be cured by drugging at the last moment. The cause or causes that are responsible for the anæmia must be first looked into and remedied and their recurrence prevented. In the malnad these conditions are malaria and intestinal worms (largely hookworms) and these will have to be first of all removed from the system by means of drugs. After doing this, the vitality of the mother will have to be built up through tonics and through nourishing foods. It is only by adopting such a procedure that satisfactory results can be achieved.

ORGANISATION PROPOSED.—(Short range policy).

The improvement of public health status of malnad requires an efficient Public Health organisation on the most modern lines with necessary machinery to give special attention for the control of the specific conditions that are responsible for the present position. The problem of improving general health conditions of the malnad should be tackled as a whole and not by attending separately to individual causes which contribute to the ill-health of the people. The desired result can only be achieved if the problem is considered as a general public health problem including medical relief giving special attention to malaria, maternity and child welfare, helminthic infection, etc. Malaria control activities cannot be separated from general health work and when the latter is neglected or not provided for in the scheme, the measures taken to prevent and control malaria will not be productive of maximum results. Maternity and Child Welfare services cannot also be separated from general health work if maximum result is aimed at.

The organisations that have been working in the irrigated tracts of the State have given immense relief and improved the general health conditions of the people and similar organisations with modifications to suit the local conditions of the malnad are bound to give satisfactory results. The Health Services proposed for malnad area in the Postwar 5-year Development Plan consist of combined and co-ordinated peripheral organisations distributed throughout the rural parts and within the easy reach of all people. These organisations will give facilities not only for the maintenance of health and prevention of disease but for medical relief as well.

The staff that is necessary for a primary or peripheral organisation designed to carry on the abovementioned activities are an adequate number of Sanitary Inspectors, Midwives, Public Health Nurses, Compounders and dispensary servants, fieldmen and maistries under the control of Medical Officer specially trained for this type of work. Looking at the type of work that the staff have to do, it is needless to say that it is not possible to give them an unduly very large population in this different country. It has been found by experience that villages situated not more than two or three miles radius from the village where the dispensary is situated should be selected for grouping. The population of such a group has been found to average 5,000 (varying anywhere between a minimum of 3,000 and a maximum of 8,000). Such a group will require two Sanitary Inspectors, two Midwives, one Public Health Nurse (when she becomes available), the usual dispensary staff and the fieldmen and servants required for spraying and other works that are to be undertaken in the villages. Each dispensary should be provided with a four bed ward, two for general cases and two for

maternity cases. This means the formation of a Health Unit and as far as one can see the formation of Health Units is the only satisfactory solution for solving this problem for now and for the future. As a Unit of this kind reaches the people of the remotest corner it is termed a primary or peripheral Unit.

To control, guide and direct the work of a number of such Units (which collectively would make a Sub-Division), a Secondary (or Sub-Division) Unit becomes necessary. One of the centrally situated primary centres, in a group of 5 (for malnad areas) will be selected for such a Secondary centre. This office (which is distinct from the primary centre at a Sub-Division headquarter place) will be in charge of a medical Graduate with suitable training and of the status of a second class Health Officer. There will aso be a Lady Doctor attached to the secondary centre. In all, at this secondary centre there will therefore be three Medical Officers, *viz.*, one Directing senior officer, one Lady Doctor and the Medical Officer attached to the Primary centre. To this centre will be attached a Maternity Ward of 10 beds and a general ward of 10 beds of which five will be for men and five for women patients.

The District Health Officer will be in charge of all such organisations in the District and he will have in his headquarter office a Malaria Assistant, an Entomologist, a Public Health Nurse, a Public Health Engineer, a Lady Doctor, and a certain number of relieving Sanitary Inspectors who will be available to fill the leave vacancies. It is easy to see that an organisation of this sort makes Medical and Public Health aid available to all income groups, at State expense, at their doors. The dispensary works as an itinerant dispensary also.

Three Sub Clinics will be established within the Peripheral Unit area. In addition as the Doctor will be passing through the villages frequently, he will be enabled to give medical aid when he visits the villages.

This would avoid the necessity for the formation of mobile Units which are intended to give medical relief periodically to the people of interior villages but which cannot be very useful because the medical aid given by such units at intervals of a few weeks cannot be useful to people in the long run so that the money spent on them would not be justifiable. People should have the confidence of getting medical relief and advice at all times and should not be kept in a position to wait for the arrival of the Mobile Unit.

For the proper working of the whole organisation, it is suggested that one senior officer of the Public Health Department of suitable status and pay be posted to supervise all the Public Health activities and the progress made in the three Malnad Districts.

THE ACTIVITIES.

The activities necessary for achieving the results could therefore be classified under the following important heads:—

1. Malaria control.
2. Control of helminthic infection.
3. Improvement of sanitation.
4. Maternity and Child Welfare activity.
5. Pre-school and school health work.
6. Education.
7. Control of epidemics.
8. Treatment of diseases.

The staff necessary would be—

1. Medical Officers of Health.
2. Sanitary Inspectors.
3. Midwives and Public Health Nurses.
4. Compounders.

1. Malaria Control.

Malaria is hyper-endemic in malnad and there are very few in the zone who are free from this disease. Recent researches have shown that this disease is preventable on a mass scale at reasonable expense and it is extremely necessary that this activity is given primary importance and undertaken extensively in the malnad. No one procedure can be specified but the different methods that are available for the control of the disease have to be selected and combined to suit the requirements of individual villages after an actual survey.

Along with this, treatment should be carried on to cure the acute condition and to build up the resistance of the individual. This should be accomplished by the distribution of drugs, if necessary, on a mass scale to begin with and by disseminating knowledge of the diseases, their treatment, their prevention, etc., into the people. As has already been stated, it is difficult to expect the people themselves to go to central places where the staff are available, for getting the information and treatment. It is therefore necessary at the present time that the staff go to the villages to do this work for them.

In order to control malaria in this area spraying with D. D. T. would be undertaken in these villages as a most promising measure for effective prevention and transmission of infection. This will result in the number of acute cases getting fever and the problem reduces itself to treating the chronic cases. This could then be done effectively by means of drugs As malaria is seasonal in the malnad D. D. T. spraying will have to be done only for a few months during the transmission season thus reducing the cost of the scheme.

2. As regards hookworm infestation which is at present about 90 to 100 per cent, mass treatment of the people in such cases will be taken during certain definite seasons of the year.

3. Improvement of Sanitation in Villages.

These include improvement of sanitation of the buildings and villages, introduction of latrines, improvement of water supply, etc.

4. Maternity and Child Welfare.

The activities under this head are (1) care of mother during pregnancy, (2) during child birth and after child birth and (3) care of the infant until its pre-school stage.

5. The care of pre-school and school children—Health Work.

The activities include periodical medical examination and follow up of defects and inculcation of health habits.

6. Education.

The activities under this head are lectures, cinema shows, posters, leaflets, exhibitions, radio talks, etc., bearing on health subjects.

7. Control of Epidemics.

Chief among the activities under this head are preventive inoculations, chlorination of water supply, cyanogasing of houses, etc.

8. Treatment of Diseases.

Dispensary work and treatment at clinics.

Research Stations.

In addition to the establishment of primary and secondary health units, there is a great need for the establishment of the well equipped research station in the midst of the Malnad. A proposal for starting such a station at Sakalespur in the Hassan District has been submitted to Government separately.

Allocation of Activities.

The Medical Officer of Health.—To be in charge of the dispensary and clinics and to direct all the activities of the staff working within his area, to give periodical visits to the villages to acquaint himself with the exact local conditions, to check the work of the staff on the field, propaganda, etc.

The Sanitary Inspector.

To assist in surveys, to collect vital statistics and to report occurrence of epidemic diseases to the medical officer of health, to take measures to prevent the spread of epidemics, to improve the sanitation of buildings and villages, to chlorinate water supplies, to assist in the control of specific diseases like malaria, hookworm, etc., to vaccinate and to check work of vaccinators, propaganda, etc.

Midwives and Public Health Nurses.

To register pre-natal cases and infants in their jurisdiction, to give periodical visits to town, to conduct labour, to give post partion visits to bring abnormal cases to the notice of the nurse and doctor, to assist in conducting clinics, propaganda, etc.

Compounder.

To assist the Medical Officer of Health in conducting the dispensary and clinics.

In submitting these proposals to the Committee, I may mention that some of the chief points that have to be considered are :—

(1) To make arrangements for employing trained personnel as required by the planned programme. This means starting of training classes for Midwives, Sanitary Inspector. Compounders, Public Health Nurses and Doctors recruited from Malnad areas, as far as possible giving free studentships and scholarships to attract them so that the programme may be carried on without interruption.

(2) To provide quarters for the entire establishment just as in the case of Electrical Department who provide necessary houses for their staff along with the stations as they are started, as one of the difficulties that has been seriously felt in the Malnads is want of living accommodation for the staff. As the work is taken up, provision should be made.

(3) To give facilities like free diagnosis, treatment, etc., to the staff to enable them to maintain themselves and their families in a healthy condition as the area in which they serve is particularly unhealthy.

(4) Finally as conditions are, people hesitate to go to Malnads and when they are posted they find some means or other to escape going there. To prevent this tendency by making Malnad service more attractive by giving the staff special allowances as has been done in Jog.

The Long Range Policy.

The location of houses in the Malnad villages is usually very close to cultivated fields and very often in the midst of swamps or near hill streams, feeder channels for paddy fields or drainage channels. The incidence of hookworm is also high in these places on account of the marshy nature and the indiscriminate fouling of the soil both of which are favourable for the spread of this disease. Though the general features are common there are bound to be minor but very important deviations from place to place so that the methods to be adopted for each will have to be modified suitably. For specifying the methods a detailed study of every village will have to be taken up individually. It is

therefore recommended that a small Fact Finding Committee consisting of a Health Officer, an Engineer and a Revenue Officer is constituted to collect facts and to recommend the measures to be adopted. To help the District Health Officer, a staff consisting of a junior Malariologist, a Sanitary Inspector and an Overseer will have to be attached to this Committee. One such organisation should be provided separately for each district. The reports of the Fact Finding Committee will have to be submitted to a higher committee consisting of the Malariologist in the Department of Public Health, the District Health Officer and the Deputy Commissioner of the District which will approve the schemes and submit them for sanction to the authority, which would probably be a Central Malnad Improvement Committee constituted by Government.

For the proper working of the whole organisation, it is suggested that one senior officer of the Public Health Department with suitable status and pay be posted to supervise the progress of the work in the three Malnad districts.

NUTRITION.

No public health work would be complete especially in the area like the Malnad where ill health and malnutrition are extremely prevalent unless the subject of nutrition is given the attention that is due to it. Along with the removal of rank vegetation round the village, production of protective food in the areas cleared commends itself, as, by doing so, not only are useful crops cultivated but the possibility of revival of jungle growth is prevented. Increasing the production of milk is another important problem which will have to be considered in regard to rehabilitation of the Malnad.

PISCICULTURE.

Fish-culture in all the small tanks is another useful method of supplementing the food supply of the region, so that those who are accustomed to such food may obtain it easily. At present the supplies of fish are obtained in the shape of dry fish imported from the West Coast and this is used more as an appetiser than as article of food.

One of the points on which the present day nutrition specialists are laying stress is the lime content of the natural food. In England and other places they are now reinforcing wheat flour with chalk in order to supplement this element. Agriculture and Public Health Departments have to work in collaboration to see if the food that the people in the malnad are using is well balanced. No doubt our people have been all along in the habit of taking chunam with betel-leaves, but to what extent this is being utilised by the body will have to be studied.

Importation of Foreign Labour

Attempts were made as an experimental measure as early as 1917 to bring in outside labour into the Malnads for increasing the population. Two colonies were established, as a result, in Sagar Taluk. The first set of people were brought from the maidan areas of Travancore and were about 150 in all. They were given all financial and material facilities by Government. The forest was cleared, a well was given and huts were constructed for them and each family was given about 8 acres of land and money for the purchase of cattle and agricultural implements. But the end of the scheme came about rapidly and tragically in about 16 or 20 months. Malaria swept them out and in the end only about 10 were left in a miserable condition, living between life and death, to tell the sad story. Another attempt was made and a second set of labour was brought in from Nagamangala. Very soon after coming they all developed malaria but these lost no time in hurrying out of the place back to their native homes.

As is well known in areas which have been for a long time hyperendemic for malaria the native population develop a certain amount of immunity which makes them live a kind of a subnormal existence without ever being free from disease. When a non-immune population however, is introduced into such hyperendemic areas, the store houses of parasites in the local population and the mosquitoes do not allow them to continue to live healthily for any length of time. They very soon become subject to violent and virulent attacks of malaria and die out in a couple of years. Under these circumstances, the importation of non-immune healthly labour from maidan parts into the malnad area cannot be recommended unless and until all necessary precautions are taken to create and to maintain a protective zone around the colonies. This is not practicable for small populations of 100 or 200, but it is quite possible for reasonably big (populations of 2,000 or 3,000) industrial or agricultural colonies.

In addition to the rural population living in Malnad area there is a large section of labour population drawn from different maidan parts of the Mysore State as also outside the State from places such as South Canara or North Canara. This labour is used largely on Coffee, Tea, Arecanut or Cardamom Estates and partly employed as Agricultural labourer. The total number working in these estates forms a substantial number of this imported labour. As owners of the estates and big land owners recognise the importance of the health of labour they usually provide a certain amount of money in their budget for the protection and maintenance of their health.

But on the whole, the environmental conditions under which these labourers live, have not been such as to ensure health.

The following are generally observed, pre-disposing to adverse health conditions.

1. The sites where the labour colonies are constructed have not been properly selected so much so the people who live in them are vulnerable to malaria.

2 The sites are usually close to the bottom of the valley which encourages transmission of hookworm infection and its maintenance.

3. The intestinal group of diseases are also quite common as water supply is not a safe one.

4. The conditions of houses themselves are not satisfactory in several cases being unfit for human habitation.

In some of the Estates conditions are similar to the conditions in existing villages. In the case of most Estates the site is usually selected and colonies are constructed with reference to easy availability of water for drinking purposes.

If any improvements are now to be effected it has to be with the goodwill and generosity of the owners of Estates.

To improve the conditions of the imported working class with special references to the labour in Estates, the following improvements are necessary :—

1. Suitable sites have to be selected wherever necessary, for the construction of houses.

2. Sanitary houses with sufficient ventilation, light and of the type that can be kept free from dust and pests. These houses need not necessarily be costly but built with minimum sanitary requirements.

3. For the prevention of soil pollution and indiscriminate fouling each house is to be provided with sanitary latrines.

4. Drinking water wells are to be provided for each colony within walking distance of the colony.

5. Regular inspection of the living conditions of the labourers on the Estates from time to time should be made obligatory.

The above points may be arranged to be given effect to either by rules framed by Government or legislation if necessary.

In the earlier part of this Note, recommendations have been made for the formation of Health Units with malaria and hookworm control as special measures for this area. So far, Government have sanctioned 29 Health Units in this area of which 11 have been sanctioned recently but work has not yet been started. In the formation of Health Units, 22 dispensaries have been included in Health Units. The department is submitting proposals to Government for taking up spraying of D.D.T. as a good stock of D. D. T. has been received. It is expected work will be started soon after the rains stop.

(xiii) Note of the Deputy Commissioner, Kadur District.

With all increased medical facilities it may not be possible for the population to increase unless at the same time evils which prevent the birth rate from being high are eradicated. Further it is easier to increase the birth rate than to lower the death rate. So, I would advocate the following measures :—

(1) Legislation may be passed abolishing the payment of "Tera"; (2) Government may subsidise marriages as this was being done in Germany, Italy and various other countries. I would suggest payment of Rs. 100 or Rs. 150 either as a loan or as an outright grant to each married couple. At the same time propaganda should be conducted for the abolition of "Tera" system. It may be mentioned in this connection that a number of Adikarnatakas came to me last year representing that they may be permitted to let their girls as "Basavies" as they were unable to marry on account of the high "Tera". I requested them not to take any "Tera" but they were not agreeable. *Lokasevaniratha* Mr. V. R. Chikkachennanjappa Setty very kindly offered Rs. 1,000 for the performance of ten marriages and I tried my best but the Adikarnatakas unanimously said that the money was insufficient for ten marriages and the "Tera" of Rs. 300 had to be paid. I could do nothing in the matter in spite of the best efforts of the Special Officer for Depressed Classes. As a way to get out of the difficulties some of them have left their girls as "Basavies" and we have been taking action to prosecute them. I mention this incident to point out how bad the conditions are. In olden days it was usual for rich farmers to make payments in kind of "Tera" and obtain agreements from the couple to serve them till their death. But the conditions being different now, there is no rich landlord to advance the necessary amount to enable the people to marry.

The third measure, I would advocate is abolition of polygamy amongst certain communities in Malnad so that the available brides may not all be monopolised by a few rich persons. Practice of polygamy is more prevalent in Malnad than in the Maidan and in the interests of securing a higher birth rate it must be abolished.

* * * *

The fourth is the popularisation of widow marriages. In Malnad even communities which allow widow remarriages are not practising it. * * * *

Mortality is due to the following diseases :—

(*a*) Malaria, (*b*) Pneumonia, (*c*) Dysentery, (*d*) Typhoid, (*e*) Hookworm, (*f*) Infantile cirrhosis of the liver, (*g*) Septicæmia during child birth.

Malaria and hookworm which are practically universal by making the body feeble make the person an easy prey to the other diseases. Infantile cirrhosis of the liver is due to malnutrition

and childbed fever is due to bad management of labour. Therefore, efforts must be concentrated towards (1) prevention and eradication of malaria and hookworm, (2) making available wholesome water, (3) preventing malnutrition, and (4) proper arrangements for safe labour. * *

As a first step towards controlling malaria, houses situated in unhealthy localities should be shifted to healthy localities and the construction of houses in unhealthy localities should be prohibited. For this purpose it may be necessary to amend the Public Health Act.

It is also necessary to keep not only the precincts of the habitation free from rank vegetation but also the lands adjacent to the wet lands free from rank vegetation. It is stated that the malarial mosquito after biting goes outside the house and rests on vegetation. By freeing the land from vegetation, the mosquito will have no hiding place. For this purpose bull dozers seem to be effective. It is very necessary to clear the vegetation round about the wet lands also, as by that measure the wild animals damaging the crops will be deprived of cover and it will be easier to watch the crops. In my opinion at least 2 or 3 furlongs in width should be cleared of vegetation. To prevent fresh vegetation from springing, mosquito repellants such as eucalyptus and wild cinnamon may be planted in the areas and the area may be treated with weed killer periodically. The game laws should be liberalised, large areas should be disafforested and free licenses for fire arms, etc , should be issued in greater numbers. As far as possible wild animals should be confined only to game sanctuaries.

There must be a hospital for every 1,500 or 2,000 persons in Malnad and every hospital should have a lady doctor, male doctor, an ambulance car, a midwife, and a compounder and sanitary inspector.

* * * *

At least two cinema vans should be provided for each District for propaganda purposes. Each van should have a propagandist attached.

As a first step towards hospitals, a hospital may be provided for every 4,000 people in the malnad during the next two years. Within the next five years hospitals may be provided for every 2,000 people and equipped as suggested above.

The villagers should be encouraged to grow cinchona in their backyards. For this purpose, the seedlings of various varieties of cinchona may be supplied by the Forest Department to each household immediately and in future every year until there are at least 10 or 15 cinchona trees in every household. Subsidies for growing cinchona should be given.

A considerable area of Malnad still requires to be opened up. The construction of roads, bridges and railways should be given

priority and more money should be allotted for the same. The motor transport should also be organised and subsidised if necessary so that all areas may be served by the motor bus and lorry. For the maintenance of the roads larger grants are also necessary. Easy communications will facilitate commerce and attract settlers. As an instance as to how settlers are attracted I may mention the case of Honar bridge. This bridge was constructed three years back in Chickmagalur Taluk. Since then applications for coffee lands from Mangaloreans and others have been pouring and a good bit of the country has been opened and settled. As already remarked, bus service in certain areas must be subsidised by Government until the traffic improves.

I may add in this connection that if the road scheme drawn by the District Board and by District Advisory Committee is executed expeditiously a good bit of the country will be opened up. It will be necessary to construct three important bridges over the Bhadra and the Tunga and the Hemavathy at Hebbe, Sringeri and perhaps at Daradalli to open up the country fully. Railways to connect Narasimharajapura with Shimoga, Koppa, Sringeri, Kottigehar, Mudigere and Chikmagalur and Kadur are necessary.

Education in my opinion is the most potent factor for developing any country. So far as malnad is concerned a very liberal policy should be pursued in the matter. There should be a primary school for every 100 or 150 persons and at least two middle schools for each hobli and a high school for each taluk or sub-taluk and an Intermediate College at every District Headquarter. These should be established early. Adult education should also receive immediate attention. The primary education should be made compulsory and more schools should be constructed immediately.

As regards malnutrition the deficiency seems to be principally in fats and vitamins. Milk is hardly available and fats are not consumed in sufficient quantities. Unfortunately milk is a rarity as malnad cows are bad milkers. The breed of malnad cows should be improved by large importation and systematic crossing of malnad cows with Sindhi bulls and even English bulls.

* * * *

Personally I feel that arrack and special liquor should not be sold in malnad and that only Bagani toddy and Akkibhoja should be sold.

* * * *

The development of malnad in my opinion is hampered for want of officials to man the posts. There are now a larger number of hospitals and schools without doctors and teachers. Taluk headquarters like Mudigere and Narasimharajapura were without doctors for long periods. Mudigere Middle School had

only one teacher for a long time. For Koppa, Sringeri and Narasimharajapura for a fairly long time there was practically only one sub-overseer to look after the Public Works Department Works. Narasimharajapura Sub-Taluk has been without a Deputy Amildar for a long time. Absence of hands is affecting the nation building activities very badly. People from maidan are reluctant to take up services in malnad as the life in malnad is generally costly. I propose therefore that to attract people of service in malnad every official whose salary is less than Rs. 100 should be given an allowance equal to 33⅓ per cent of his salary and tho e that get above Rs. 100 and less than 133⅓ may be allowed an allowance to make their emoluments equal to 133⅓. So great is the ignorance about malnad that very recently a school-master declined to join service on the ground that Birur was malnad. This indicates an urgent need for intensive propaganda to show to maidan people that they need not be afraid of malnad.

Another point which requires immediate attention is giving electricity to the malnad parts and development of electric resources. Jog project has already been undertaken by Government but there are yet smaller projects which require investigation, which in my opinion will yield at least 50,000 K. wts. or even more. I think the Hemavathi, the Bhadra, the Tunga and several other minor rivers can be harnessed suitably to yield electric power. Without electricity it will not be possible to start industries like manufacture of paper, plywood, furniture, rayon, rubber articles, celluloid, pickles and fruit preservers, etc., which are suitable for the malnad.

* * * *

Definite programme for improving the Live-stock in Malnad has not been drawn up. I would suggest starting a cattle breeding station for breeding Sindhi cows and bulls and Murra buffaloes and for breeding indigenous Malnad buffaloes by selection and for breeding goats especially goats which can thrive in malnad. I would suggest the station being started in the heart of the malnad like Aldur, Mudigere or Koppa in the first instance and to have two such breeding stations in every district.

As regards improvements of agricultural methods, I would suggest having two experimental stations in each district. Separate staff in the Agricultural Department consisting of three branches may be obtained—(1) for propaganda, (2) for supply of improved seeds, and (3) for experimental work. The development of agriculture will attract settlers to malnad.

Then there is the vexed question of attracting settlers to Malnad. This requires intense propaganda in the over-populated parts of the State and South Canara and ample subsidies and concessions to people who want to settle down in malnad.

Summing up my conclusions and recommendations are as follows:—

1. The decrease in population is due to high death rate and low birth rate.

2. Birth rate has to be increased by eradicating factors preventing it from rising. This can be done by subsidising marriages, preventing polygamy and encouraging widow remarriage and abolishing "Tera."

3. Death rate has to be reduced by controlling chiefly malaria and this can be done—

(*a*) by shifting villages to healthier localities by compulsion;
(*b*) by more hospitals and doctors;
(*c*) free distribution of medicines;
(*d*) spraying;
(*e*) removing rank vegetation;
(*f*) lessening chances of catching malaria in the fields by making it easier to watch the crops;
(*g*) propaganda;
(*h*) combating malnutrition;
(*i*) abolishing use of arrack and supplying only bagani toddy and akkibhoja.

4. Better and more roads and bridges are required for opening the country. The bus services may be subsidised wherever the routes are unremunerative.

5. Railway construction should be speeded up and the same should receive prior attention.

6. Education is absolutely necessary if the healthy ideas have to be imbibed. So more schools and inter colleges for each malnad district should be provided.

7. Relaxation of game and forest laws and supply of arms o make the country safe for cattle and crops.

8. Need for special locality allowance to officials serving in malnad to attract people to malnad and to educate people that malnad has no terrors and is safe for people to settle down.

9. Electrification and starting of industries like plywood, furniture making, rayon, rubber articles, cellulloid, etc., with the help of electricity.

XIV. Note of the President, District Board, Hassan.

The several progressive measures that may be adopted with advantage in future to improve the unhealthy condition and the general standard of living of the people of Malnad parts may be summarised under the following heads:—

(1) Public Health,
(2) Medical Aid,
(3) Sanitary,
(4) Communication,
(5) General.

First and the foremost comes the question of health. Nearly 90 per cent of the population suffer from malaria and similar diseases. Establishing a greater number of Health Units is considered to be absolutely necessary.

One vaccinator and one midwife may be appointed for each of the hoblis and may be placed under the control of the officers in charge of the above Health Units to secure proper check and supervision regarding the work to be turned out and to issue necessary timely instructions to suit local needs. Attempt may be made to appoint one vaccinator and one midwife to each taluk in addition to the existing ones from 1946-47 alone and the scheme to be worked out in a course of five years. Sufficient amount of encouragement should be shown in the form of extra allowance to attract qualified and experienced persons to accept the posts.

All the existing Local Fund Dispensaries in this tract may be conveniently converted into Malnad Improvement Hospitals and another four or five hospitals opened in each of the said taluks. A separate Medical Officer may be appointed either for each district or for two districts to guide and lead the activities of these hospitals whose function is of special nature, because the diseases prevalent in malnad parts are fewer in number and general and common in nature. Thus this officer will be able to concentrate his attention and turn out good work by means of research and application. A well equipped laboratory may be established either at Shimoga or at Chickmagalur to ensure ready and speedy supply to these hospitals.

Generally the villages are situated in unsanitary localities and far away from each other. To improve them and bring them to some standard, attempts may be made to group some of them and establish the same in some more healthy and suitable places. Encouragement may also be given to shift some of them to better and more healthy locality or to extend the present existing village sites with necessary and suitable modifications in consultation with Sanitary Department.

More than anything else facility of good drinking water is the thing whose necessity cannot be over estimated. A well organised scheme in this direction to provide a protected well fo

each village should be chalked out and worked out as expeditiously as possible since the question of providing good water is essential to maintain public health in a satisfactory condition.

Want of proper communication in the form of Railways, Roads and Bridges wherever necessary is also one of the great handicaps which the persons of these tracts are subject to. Railway lines may be extended into the interior parts of malnad, wherever possible and feasible in order to afford the modern facilities of civilised life with a view to improve the standard of living. Laying out new roads and improving the existing roads should be taken up immediately, as generally the roads in this district have been neglected for a number of years due to paucity of funds at the credit of the District Board. Any amount spent in this direction will not be a waste, but on the other hand, it may be reckoned as a suitable investment and a source of income, since we may expect more buses to ply in these parts.

During monsoon season, certain parts of important villages will be cut off and it will be very difficult for persons to move about as the channels and hallas will be in floods. So, in these places bridges are absolutely necessary to maintain communication between one part of the malnad to the other.

Under the head general, loans for Malnad settlers, Economic and Industrial purposes may be issued to those who want to take advantage of the same and to settle down in malnad parts and to establish big industries in these parts at a concessional rate of interest. This will certainly improve the economic condition of the people. To eradicate the present illiteracy and to spread education, a large number of schools both primary and middle, may also be established.

—As the scheme embraces and extends to the activities of the several departments, necessary statistics, especially in its financial bearings have to be worked out and consolidated by different departmental agencies. So, the exclusive subjects over which the District Board has control for the present are discussed below in all their aspects.

Confining to the activities to be carried out by the District Board in this direction, mention may be made only of vaccination, road works and distribution of quinine, as is being attended to now.

Out of the eight taluks of this district, Alur, Belur, Sakleshpur and Arkalgud Taluks may be grouped into Malnad Taluks and brought under jurisdiction of this scheme.

The present strength of Vaccinators both District Board and M. I. are distributed as noted under :—

		M. I.	District Board
Hassan : 113,890 population as per Census of 1941.			3 Includes one reserve.
Arsikere : 118,081	... ...		3
Channarayapatna : 110,545	... ...		3
Holenarsipur : 66,489	... ...		2
Alur : 29,927	... ...		1
Belur : 66,951	...	2	...
Saklespur : 41,932	...	1	1
Arkalgud : 75,185	...	1	1
		4	14

It will be seen therefrom that a greater number of vaccinators are required to be appointed in the malnad taluks of the district. The number of hoblis, the existing vaccination staff and the additional staff required for each of these taluks with the probable cost involved are detailed under:—

Population.	*No. of hoblis.*	*Present No. of vaccinators.*	*No. of vaccinators required.*
Alur ...	4	1	3
Belur ...	5	2	3
Saklespur ...	5	2	3
Arkalgud ...	5	2	3
	19	7	12

As already noted above, one additional vaccinator may be appointed to each of these taluks from 1946-47. By 1949-50 there will be one vaccinator to each of the hoblis in these taluks. The amount required will be as follows:—

	Rs.
Pay ...	... 30–2–40
Fixed Travelling Allowance	... 8
Contingency and Malnad Allowance	... 2
Total	... 40 per mensem.

Pay has to be taken at Rs. 30 per mensem since experienced persons alone have to be recruited.

For the first year a sum of Rs. 2,000 will have to be allotted and a like sum has to be set apart for the second year in addition and so on. Thus about Rs. 12,000 will be required to work out

this scheme and will have to be sanctioned in the form of grant under malnad improvement year by year as shown under and continued for sometime more :—

40 × 12 × 4		Rs.
1st year	...	2,000
2nd ,,	...	4,000
3rd ,,	...	6,000
Total	...	12,000 (twelve thousand).

Nextly comes the means of communication, *i.e.*, roads. As already observed, the roads of the districts, especially in the malnad parts are unserviceable and unfit for even ordinary cart traffic.

The total length of District Fund Roads is 561 miles inclusive of 85 miles maintained by the Civil Agency. According to the Government Order of 1942-43 passed regarding classification of roads, a length of 300 miles of roads maintained by Public Works Department is treated as marketing roads leaving a balance of about 250 miles of road to be maintained exclusively out of the District Funds.

Improvement to these existing roads and laying out new roads have to be taken up immediately and this may be taken up either under inter-village communication scheme or sufficient grant given to District Board to work out the scheme.

For a period of five years, grant may be sanctioned at the rate of rupees one lakh per year, *i.e.*, Rs. 50,000 for improvement of the present roads and Rs. 50,000 for new roads at the rate of Rs. 500 per mile, for 100 miles every year. Thus there will be a net work of roads and approach road to the extent of 500 miles within a course of five years in addition to the present length of roads, *i.e.*, 250 miles. This will, no doubt, provide sufficient communication for the rural and urban population and it will be possible for the District Board to maintain them in a fairly good condition, out of the usual annual grants.

A sum of Rs. 1,000 per annum may be sanctioned for five years for the purchase and distribution of quinine, free in the malnad part to control and check the spread of malaria as is being done now.

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(xv) **Note of Mr. N. P. Govinda Gowda, B.A., M.R.A.,**
President, Kadur District Board.

Malnad has to be revived in all aspects to cope with the other parts of the State. Crores and crores of rupees are to be spent by Government to improve malnad. Government has to take a bold step with a sincere will of improving malnad on the following aspects which are briefly explained below.

MALNAD IMPROVEMENT.

The general improvement of malnad unlike maidan requires certain special measures and a heavy initial and recurring expenditure on the part of Government.

The Government have to take immediate steps in the following aspects for the improvement of malnad.

I. Education.

(*a*) *Full free compulsory education to the Middle School* has to be introduced immediately in malnad.

(*b*) Compulsory half freeship to be given to malnad students as in the case of Muslims till a certain standard is reached just to encourage the malnad villagers to send their children to schools.

(*c*) Central boarding homes to be established in a central place surrounding 5-6 schools to facilitate poor people to give education to their children.

(*d*) Industrial training to be given in malnad schools from middle school and onwards as there is much scarcity of technical men like carpenters, blacksmiths, etc., and as they are imported from outside.

II. Communication.

The most important thing to improve malnad is to open up the interior of malnad by means of roads and bridges and thus free the villager out of the prison in which he is stuck up.

There are not sufficient roads and bridges; there is a necessity of number of bridges for one road, as malnad is a hilly country and there are small and big rivulets at each step. So, Government have to survey the entire malnad and provide roads and bridges to each and every village in malnad even though the cost is very heavy.

III. Water Supply.

Most of the diseases that are prevailing in malnad are due to bad water. Though there is no scarcity of water in malnad in ordinary time, there is scarcity of good drinking water. The Government have to provide drinking water wells to each and every village even though there are 4-5 houses in a village. The present method of giving a well to villages that have more

than 15-20 houses should be discontinued as good water prevents so many diseases specially Malaria in malnad. Providing taps may be tried in some of the villages in malnad as there would be continuous flow of water from a higher altitude.

IV. Marketing.

The malnad raiyat is not getting sufficient value for his agricultural or commercial crops and is entirely depending upon the middle men who get the benefit. This is due to want of good roads and communications. So, marketing societies are to be introduced to purchase the raiyats' products and to supply his necessities without giving room for middlemen's profiteering. So, Marketing Co-operative Societies are to be introduced immediately in malnad to make the raiyat get the full value for his commodity.

V. Rural Indebtedness.

The malnad raiyat is submerged in debt. So, a survey of rural indebtedness in malnad has to be made immediately and the debt has to be paid by Government through local Land Mortgage Banks, etc., and thus the raiyats in malnad should be liberated from the clutches of their feudal lords.

VI. Agriculture.

(*a*) Co-operative Farming.—There is a vast acreage of fertile cultivable land available for cultivation in malnad. The reason is that the population of malnad is decreasing every year and much labour is being imported from South Canara and other places. The labour shortage is very acute in malnad. So, Co-operative farming may be introduced in malnad and its results may be tried by the Co-operation Department.

(*b*) Introduction of agricultural colonies by the Government may be tried in malnad.

(*c*) Labour colonies.—Government may import labourers from maidan to malnad parts by giving them good lands and providing them with quarters, etc., just to cultivate the cultivable waste land and thus help the food production of the State. This is a very essential thing the Government are to take cognizance of and to try this in some places of malnad immediately.

VII. Irrigation.

Malnad is full of tanks. There are thousands of tanks that require minor repairs. Minor tank restoration and minor repairs to tanks in malnad are progressing at snail's pace. Government should create special sub-divisions for this work and get all the minor tanks restored and all tanks repaired immediately.

There are many small streams that could be made use of for agricultural purposes by small anicuts at a small cost. Existing anicuts that are breached or that require petty repairs should be repaired immediately. Construction of big dams in malnad should be stopped as it would increase Malaria which is already predominant and thus diminish the population which is already diminishing in malnad.

VIII. Medical.

(*a*) Providing a dispensary at every five miles.—Malnad is unlike in its geographical aspect and villages are sprinkled amidst hills and dales. Dispensaries cannot be started according to population. There should be at least one dispensary at every five miles radius in malnad.

Prevention is better than cure. This holds good in malnad. Much work has to be done to prevent the disease rather than curing. More of health propaganda has to be done in malnad. The people are illiterate and do not understand the advantages of medical aid in time. Health propaganda has to be done in every village. Village sanitation has to be improved. Villagers are to be taught to keep their houses clean, their persons clean and their villages clean. For this, Government have to spend large amounts of money on health propaganda by the Health Department. The people are to be educated and be made to make use of the advice given by the Health Department.

(*b*) Maternity help.—Malnad requires very much in terms of maternity help. A large number of pregnant women die for want of sufficient maternity advice during pregnancy and during delivery time. Trained midwives and nurses are to be posted for every three miles to maintain a list of pregnant women to give the directions during pregnancy to avoid malnutrition, etc. There should be post-natal and ante-natal work done regularly in malnad. There should be one midwife or nurse for every three miles in malnad.

More maternity wards have to be started in malnad, specially in the interior places, as many women die during the time of delivery.

IX. Industries.

There are absolutely no industries in malnad. As the paddy growing is the main occupation of the malnad raiyat, six months in a year is unnecessarily wasted by the villager. That is how the financial condition of the malnad raiyat is very bad. Just to give a chance to the raiyat to make use of his spare time in earning a subsidiary income and thus enhance his earnings, rural cottage industries are to be started by Government in malnad villages. An industrial survey has to be made immediately

in malnad investigating the possibilities of starting cottage industries in malnad villages and such of the industries that are possible are to be started by Government immediately.

Some of the big industries that are concentrated in big cities only may be started in the heart of malnad just to give an impetus to malnad villagers.

X. Live Stock.

The largest live stock exists in malnad. But what is the benefit from that livestock to the State? The number of cattle may be large but the quality of the cattle is very poor. The cattle in malnad is very much neglected. They are underfed. There is no good breed. Ploughing bulls, etc., are imported from maidan as the malnad cattle are unfit to do hard work. So, Government has to take steps to improve the cattle breed in malnad. Milk is very scarce in malnad even though there are good number of cattle as the existing breed is unfit for milking. Due to scarcity of milk, the children are not given sufficient milk and as such the generation of malnad who were once a battalion of stalwarts is becoming pigmies. So, Government have to increase the milking cattle breed like Sindhi cattle, etc. More veterinary hospitals are to be started in the interior malnad.

More gomals are to be set apart for rearing cattle and gomals are to be sown with good nutritious grass like Napier, etc., as there is scarcity of grass in the interior of malnad. Silo method of preserving fodder may be introduced in malnad to feed the cattle during summer.

XI. Malnad Raiyats' Privileges.

The Government were gracious enough to accord some privileges to the malnad raiyats but the Chief Conservator of Forests, we are informed, has sent a proposal to withdraw those concessions. The Government have to retain the same concessions as the peculiar conditions of malnad require those concessions.

XII. Areca.

One of the important main occupations of malnad is areca. It is liable to so many handicaps like Koleroga, etc.; the people are urging from years to start an Areca Experimental Farm to investigate the diseases, etc., and the Government should start an Areca Experimental Farm in malnad immediately. An Areca Control Board may be opened on the model of Coffee Control Board to facilitate the areca grower a definite price for his areca.

XIII. Economic Upliftment.

The economic condition of malnad raiyat is sorrowful. This has to be investigated by surveying and a plan has to be made to uplift the raiyat on the economic side. His income *per capita*

has to be increased. Unless this is done, he cannot progress with the other people. His income has to be raised to the level of maintaining a decent house, certain standard of living, etc. This has to be attended to very early by Government.

On the whole, the task of improving malnad is a tough one. Malnad villager is backward in all aspects. Malnad has to be re-built as I have already stated. Intense propaganda has to be made on all aspects. The advantages of any scheme have to be dinned into the ears of the malnad villager before the scheme is actually put into operation.

I hope and expect the Government of His Highness the Maharaja will take the improvement of malnad into their heads seriously and work towards the same with a sincere good will and perseverance and thus bring malnad to the level of the most civilised part of the State.

XVI. Note of the Manager, Bank of Mysore, Ltd.

Coffee. The coffee industry assumed considerable importance during the war. The creation of Central Marketing Board and the constitution of several committees, such as 'Research', 'Propaganda' and 'Control' all helped to run the industry on healthy lines with an outlet for its product under the Pool system at very attractive rates. The high prices which prevailed during the war helped most of the planters to get over their indebtedness and maintain the estates in good condition. The annual internal consumption of this product before war was 7/8,000 tons This rose up to 10/12.000 during the war. There is every chance of this level being maintained during post-war period also. The following improvements are necessary to maintain its high level of efficiency :—

1. Present production per acre is very low. This defect can be rectified, if the old primitive methods of cultivation are replaced by more scientific methods.

2. Sufficient attention should be paid for harnessing labour on proper lines.

(i) Min : wages; (ii) Medical aid; (iii) Supply of provision and (iv) Question of labour.

3. Transport facilities.

Cardamom.—The large cardamom growing areas are Mysore and Travancore. Average annual yield in India is 2,000/2,400 tons. Of this quantity, 25 per cent is consumed in India and the balance is exported to Iran, Iraq, Persia, England, America and a few parts on the continent. India enjoys a special monopoly for export of this commodity. Mysore variety is superior to South Indian and Ceylon.

The following improvements are suggested :—

1. Proper grading of cardamom according to the quality and size.

2. Propaganda on a wide scale.

3. Transport facilities by rail and road.

4. Organising cardamom pool on the same model as coffee pool, to have effective control over rate, sales and export.

5. Up-to-date bleaching factory.

6. Granting financial facilities by way of Takavi Loans during the seasons.

Arecanut.—Cultivable areas are scattered. Average holding of an individual is about one acre. Cultivators are not owners of the garden. To face the severe competition from Java and Malaya, the following improvements are necessary, especially in the coming post-war period.

1. The general health condition of Malnad should be greatly improved to secure labour with min : wages.

2. Medical aid and supply of provision.

3. Spraying facilities.

4. Restoration of proper maintenance of tanks.

5. Road communications.

6. Formation of market for ready sale of supari.

APPENDIX 16.

Extracts from previous Government orders *re* : Malnad Improvement.

(*i*) *G. O. No.* 8036-84—*Med.* 24-13-13, *dated* 24*th February* 1914.

Measures to be taken immediately.

6. Attention should be primarily directed to the measures necessary for the removal of the most deleterious influences and the most patent evils which have hitherto been contributing towards the increase of diseases and deaths in the Malnad. These are :—

(1) To clear rank vegetation and remove small trees and scrub jungle as far as possible within half a mile round every inhabited area and to encourage the people by suitable means to undertake the work of such clearance themselves in a systematic manner.

(2) To sink wells for the supply of good drinking water and to keep them pure.

(3) To afford reasonable facilities to cultivators to obtain timber for building within a reasonable distance from their villages and to frame rules for this purpose in consultation with the Revenue and Forest Departments.

(4) To improve drainage and keep paddy fields away at some distance from villages and other residential areas.

(5) To keep cattle out of human dwellings by providing separate sheds for them.

(6) To spread sound ideas among the people about sanitation in and around dwelling houses, food, clothing, personal hygiene, precautions to be taken during child-birth, medical help, use of quinine, utility of vaccination, etc. To this end, simple rules should be printed and circulated broad-cast in the shape of leaflets.

A record of progress made under each of these heads should be maintained and a quarterly report of such progress submitted to Government.

Agency.

7. A Committee should be constituted in each of the districts of Shimoga, Kadur and Hassan by the Deputy Commissioners concerned for giving practical effect at once to the improvements indicated in paragraph 6 and for developing other schemes of permanent improvement for the tract. It should consist of selected non-official members not exceeding three for each district and the total strength of each Committee should not exceed nine members. The Committees should ordinarily meet not less than once a month for transacting business and they should utilize the services of the District Medical and

Sanitary Officer or Officers to the utmost extent possible for developing their work

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General Schemes to be formulated and executed by the Committees.

10. The general schemes to be formulated by the respective Committees in consultation with the Departments concerned and to be executed by the Committees after they are sanctioned by Government, relate to the formation of travelling dispensaries, promotion of vaccination, increased aid by midwives and nurses, expansion of communications (*i.e.*, railways and roads), attraction of settlers to the Malnad, improvement of registration of vital statistics, relief of agriculturists from avoidable indebtedness, establishment of model villages, greater facilities for cattle grazing and supply of fuel and timber, abatement of intemperance, and employment of itinerant lecturers for preaching to the people the evils of drinking and early marriages, the advantages of education and good sanitation.

Points for investigation by the Committees.

11. Government consider that there are several important matters requiring close and careful investigation by the Committees, such as increase of population in some villages in the Malnad, notwithstanding its general decline in the entire tract; the period of the year in which deaths are most numerous and the reasons therefor; the alleged suitability of *Bagani* toddy as a drink in the Malnad; the susceptibility of special classes of people to premature loss of vitality with reference to religion, age, migration, profession, habits of life, etc., the effects of expansion of forest area; the necessity of taking a census of the population in this tract at frequent intervals and the desirability of adapting the *khaneshmari* accounts of the Malnad villages to indicate the increase or diminution of population.

Departmental Schemes.

12. There are several matters in regard to which the departments of Government have to take the initiative and formulate suitable schemes for improving the Malnad.

The Sanitary Department should, in consultation with experts, draw up a scheme for conducting such sanitary survey and laboratory investigation, as may be needed for identifying the species of mosquitoes which spread malaria. It may be found desirable to consult outside experts in connection with the research work. After a preliminary study of the conditions of malaria in the tract, the Sanitary Commissioner may apply to Government for such consultation with experts on malaria.

The Department of Education should, out of the funds ordinarily placed at its disposal, provide for a due increase of Primary Schools in the Malnad tracts and for encouragement of private effort in this direction by suitable grants-in-aid; for a simpler and easier book of health lessons for use in highest classes of elementary schools; for industrial schools having special reference to the indigenous and particularly forest industries; for systematic medical inspection of school-going population and better regulation of physical exercise in all

schools of instruction and for scholarships to students that go to the Maidan parts for receiving secondary, higher and professional education.

A suitable scheme for the encouragement and development of industries indigenous to the Malnad, particularly industries connected with the utilization of the forest products, should be drawn up by the Department of Industries and Commerce in consultation with the Conservator of forests.

The Registrar of Co-operative Societies should study the economic conditions in the Malnad with a view to encourage co-operative enterprise, particularly co-operative stores and co-operative societies for transporting produce.

(ii) G. O. No. 6561-3--San. 72-17-2, dated 22nd May 1918.

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Preventive and Curative measures.—It will be seen that two measures, *viz.*, medical relief and the provision of good drinking water to the people have received special attention. The clearance of rank vegetation round villages and huts is a matter of supreme importance and it is gratifying to notice that this work has been attempted mainly by the people at their own cost. Drains have been constructed in a number of villages and some villages where extreme insanitary conditions prevailed have been shifted to healthier localities.

Measures have been taken by means of popular lectures and the distribution of leaflets in Kannada to instruct the people as to the best means of combating the adverse climatic and other conditions of the Malnad. The tract has also fully shared in the increased educational facilities afforded to the people of the State in recent years.

Development measures.—To relieve agricultural indebtedness, special attention is being paid to popularise Co-operative Societies and a debt survey in specified localities has been completed. Some new roads have also been formed. Further new settlers have been attracted to places capable of supporting a larger population.

A Committee of certain officers and non-officials was appointed in November 1915, for investigating and reporting upon the grievances of the raiyats and other matters, connected with the reservation of forests and forest administration generally in the Shimoga District. The Committee went thoroughly into the questions referred to it and drew up an exhaustive and interesting report and orders were passed thereon in Government Order No. R. 973-80—Ft. 88-15-22, dated 27th July 1917.

6. Lessons from past experience.—The experience of the last three and a half years has shown the need for a bolder policy. The expenditure hitherto incurred has been mostly for measures coming under the group, preventive and curative, and it is found that the allotments sanctioned for the three districts are barely

sufficient for those purposes. But for any rapid or substantial improvement in this region, certain measures for development also seem indispensable. These measures which will require an improved organization and the co-operation of several departments of Government, may be classed under four heads, *viz.*

(1) Roads, tanks and Railways.
(2) Attraction of settlers and supply of labour.
(3) Relief of Agricultural indebtedness, and
(4) Development of forest and other industries.

7. Roads and Railways.—The development of communications, though recommended in the Government Order of 1914, has not received adequate attention from the Committees and the departments concerned. On account of the broken character of the country, many villages in the interior can be reached only with difficulty in fair weather and some of them are completely isolated and inaccessible for weeks during the monsoon. The condition of the Malnad people cannot be expected to improve unless they are given greater facilities for communicating with other parts of the State. Better communications are needed also to enable the people to market their produce to the best advantage and to benefit by a periodical change to drier and healthier parts. The Public Works and Forest Departments, the District Boards and the Village Committees should all co-operate and bring into existence and maintain a number of roads and cart-tracks sufficient to open up the whole area. The principal roads to be opened in the Shimoga District have already been enumerated in Government Order No 57336-6—San 87-15-9, dated 6th March 1917.

As regards railways, Government have under their consideration proposals for the construction of a metre gauge line from Shimoga to Arasalu and for the extension of the Tarikere-Narasimharajapura Tramway to Koppa. The question of the construction of Birur-Chikmagalur line also requires early attention.

8. Attraction of settlers and labour supply.—There is a large area of fertile land fit for cultivation in the Malnad which owing to lack of population is either classed as District Forest or lying fallow. By constructing small tanks and kattes for storing the abundant rainfall during the monsoon and by offering suitable inducements to attract raiyats from the Maidan parts of the State, a large peasant population can be planted in this region. For this purpose blocks of land should be mapped out and kept in readiness to be given to incoming settlers. These people should be instructed as regards the precautions needed in respect of food, clothing and housing, to maintain health and strength under the malnad conditions.

The Central Committee has considered the question of labour supply and formulated certain definite proposals. Government will be prepared to render financial aid to any well

considered scheme, provided the people of the locality evince their earnestness by contributing their fair share of time and money.

9. Relief of Agricultural indebtedness.—No scheme of improvement for the Malnad can be considered complete which does not include measures for the relief of agricultural indebtedness. The development of Co-operative Societies on the lines suited to Malnad conditions is an obvious remedy and the department concerned is paying special attention to the work. It is also necessary to provide cheap capital to the small landholders, many of whom are now irredeemably in the hands of money-lenders. For this purpose, as already stated the establishment of a Land Mortgage Bank has been suggested and Government hope to pass early orders on the proposal.

10. Forest Industries.—Though the magnificient forests of the Malnad afford great facilities for developing forest industries, the committees and the departments concerned have not given adequate attention to the question. The recently appointed Special Forest Officer is investigating the prospects of starting large industries from forest produce. The Local Committees should be requested to devote special attention to the development of minor forest Industries in order to provide occupations to the rural population, in consultation with the Departmental Heads concerned.

11. Agency.—The existing agency will carry out the curative and preventive measures specified in the Government Order of February 1914, with such minor temporary additions as may be found necessary. For the development operations mentioned above, an Engineering establishment consisting of an Executive or Assistant Engineer and the necessary subordinate staff may be associated with the existing agency.

12. The Deputy Commissioner, Shimoga District, has suggested that in addition to the Central Committee and District Committees it would be desirable to institute Committees at headquarters of each taluk area in the Malnad. The Deputy Commissioners may, in consultation with the Central Committees, arrange to bring such committees into existence.

A suggestion has also been made that a half-yearly Conference of the Committees might be held at a suitable place under the Presidency of a Member of Government. Such a conference is likely to materially promote co-ordination of effort on the part of all the officers and public men concerned and enhance the efficiency and usefulness of the organisation. One annual conference seems to be sufficient for the present which might be held preferably in the Malnad

(iii) G. O. No. G. 24560-6—San. 103-20-1, dated 18th June 1921.

In connection with the retrenchment of expenditure rendered necessary by the present financial condition, the budget

grant for Malnad Improvement for the year 1921-22 has been reduced from Rs. 1,55,000 to Rs. 50,000. The operations of the scheme have in consequence to be necessarily limited to this grant. Government are therefore pleased to direct that the work of the Malnad Improvement Committees be suspended during the next year and the work transferred to the Medical and Sanitary Departments and the local bodies concerned.

2. As the grant for Malnad Improvement is hardly sufficient to meet the cost of the dispensaries, midwives and vaccinators, Government are pleased to direct that the clerical, executive and menial establishment attached to the Malnad Improvement Committees and the allowances sanctioned in the Government Order read above, be discontinued from 1st July 1921.

(iv) G. O. No. L. 2891-904– San. 28-24-1, dated 1st October 1924.

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2. Government consider that the time has now come for examining the working of the scheme with a view to estimate how far these special measures have been successful and what modifications, if any, are necessary to suit altered conditions. The main lines of the scheme which has been under operation are as follows :--

(i) Medical Relief and Vaccination ;
(ii) Provision of Drinking Water Wells;
(iii) Improvement of sanitation by encouraging the clearance of rank vegetation ;
(iv) Concessions to settlers ; and
(v) Other miscellaneous propaganda work.

3. The total amount alloted in the Budgets from 1913-14 up to-date for carrying on this work was Rs. 12,77,000, of which nearly Rs. 9,14,748 have been spent under the various heads, including the establishment charges which come up nearly to one-half of this amount, *viz.*, Rs. 4,07,537.

4. Under Medical Relief, the following Dispensaries were newly established :—

(i) Eight Stationary Dispensaries;
(ii) Seven Semi-itinerant Dispensaries;
(iii) Five Female Dispensaries ;
(iv) Four New Maternities ; and
(v) Six Ayurvedic or Unani Dispensaries.

5. About 470 wells were newly excavated in this tract at a cost of Rs. 2½ lakhs.

6. The establishment of a special agency as distinct from the ordinary administrative agency of the tract was examined in view of criticisms directed against the scheme on that score ; and, in June 1921, the Special Officer and Staff and Committees were abolished, the work of improvement and development being

entrusted to the Regular District Establishments. The financial stringency of the year 1920-21 and 1921-22 necessitated the limiting of these grants to medical relief, sanitation and the completion of the work already under execution. The grant which went up to Rs. 1,55,000 in 1920-21 was reduced to Rs. 51,000 in 1921-22 and to Rs. 45,000 in 1922-23 and was again raised to Rs. 76,000 in the last year. In the current year's Budget, it has been fixed at Rs. 1,03,000.

7. The questions that now arise in connection with the administration of this tract are :

(i) what are the special needs of the Malnad on which Government may concentrate their further efforts?

(ii) what is the agency which can be entrusted with carrying out the programme of this work?

8. After a careful review of the present situation with special reference to the past efforts made to improve the general condition of the Malnad under the Malnad Improvement Scheme Government have now resolved to concentrate their attention to the following needs of this tract :

(a) Provision of improved facilities for medical relief (including investigation of Malnad diseases);

(b) Improvement of Sanitation and Water-supply;

(c) Improvement of communications and opening of Railways ; and

(d) Industrial Development.

9. There are at present seven itinerant dispensaries, but they do not fulfil the object with which they were started. The Medical Officer in charge pays periodical visits to the villages comprised in his charge at intervals of a week or a fortnight and is not able to give continuous and sustained attention to medical aid The expenditure in the shape of allowances is unnecessarily heavy and can easily cover the cost of stationary dispensaries, which may be established within easy reach of the villages. Government therefore direct that the present itinerant and semi-itinerant dispensaries be converted into stationary dispensaries and that further stationary dispensaries not exceeding ten in number, be established in suitable places to serve the inaccessible and unhealthy parts of the Malnad, during the next two years.

10. Special medical relief to women is a matter of urgent necessity and greater facilities are to be provided for maternity cases. Government therefore direct that four Lady Medical Officers be appointed for the Kadur and Shimoga Districts on a suitable scale of pay (to be revised if necessary) with a substantial allowance and free quarters. Two may be appointed in the current year and two in 1925-26.

11. It is necessary to make vaccination compulsory in municipal areas without exception and also other areas where qualified medical men are available. Necessary orders will issue in the Public Health Department in this respect.

12. As regards improvement of sanitation and water-supply, Government will make supplemental grants every year to provide for wells and sanitary improvements to villages. All such works should be under the control of the District Boards to whom the grants, to be supplemented by their own resources as far as possible, will be transferred. As regards communications, it is necessary in the first instance to depute a Special Officer of the Survey or Engineering Department to make a survey of lands and to prepare a map showing therein all inter-village and inter-taluk communications and a programme of developments under this head for a period of three years. The existing village roads and inter-taluk communications require greater attention, and to enable the District Boards to pay such attention in future, a grant will be made from the lumpsum provision under Malnad Improvement to the District Boards for the purpose. The Superintendent, Revenue Survey, will be requested to select a suitable Survey Officer for the purpose and depute him for a period of six months to formulate the programme.

13. In respect of industrial developments, Government consider that special attention has to be bestowed on training the people residing in the Malnad in suitable industries by increas ng the number of the existing Industrial Schools, if necessary. The supervision of the Industrial Schools will be transferred to the Superintendent of Industries, Shimoga Division, who will be asked to devote full attention to the Development of Industrial Education. The Director of Industries and Commerce is requested to submit a scheme every year along with his Budget proposals, providing for the opening of two Industrial Schools every year, the cost of which will be met from the Malnad Improvement Grant. Six additional schools may be included in the three years' programme for the present.

14. The question of establishing a Land Mortgage Bank in the Malnad is beset with many difficulties. Government are in sympathy with the scheme generalally, but must before taking definite action receive promise of popular support by way of raising at least half the share capital necessary. Further a general Economic Survey of the tract may disclose practical difficulties in working a Bank of this kind in the Malnad. Government therefore direct that a general economic investigation of at least one typical taluk in each of the districts of Shimoga, Kadur and Hassan be made by an officer specially deputed for the purpose before final orders are passed in the matter. The cost will be met in the current year from the Budget Grant under Malnad Improvement.

15. One other problem requiring consideration immediately in the Malnad is the question of additional facilities for education. There is at present only one English High School at Chikmagalur and one Collegiate High School at Shimoga. The

next three years' programme should include the opening of a High School at Tirthahalli and a Collegiate High School at Chikmagalur, subject to provision being found for the same in the Education Budget.

16. A separate grant will be made for giving scholarships to the Malnad Students, irrespective of caste or creed. Arrangements will also be made for a larger number of vocational classes being introduced in Middle Schools in the Malnad. In regard to these, the Inspector-General of Education will be requested to submit definite proposals to make a beginning in the next year as far as funds permit, including a three years' programme of expenditure for the approval of Government.

17. As regards Railways, steps are under consideration for resuming the construction of the Shimoga-Arsalu Railway line and separate orders will issue, in due course.

(v) G. O. No. C. 1-50—San. 17-26-1, dated 11th October 1926.

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2. The proposals made by the Committee can be classified into two groups, *viz.*, those relating to the extension or modification of measures already sanctioned (including proposals for the revival of arrangements previously in force but latterly discontinued) and those on which final orders of Government are now required. The suggestions of the Committee in respect of medical relief and sanitation, improvement of tanks, provision of additional facilities under education, transport, cultivation and other similar matters come under the first group. The proposals that a special agency be established for Malnad Improvement work, that a Committee be formed for each district for giving advice as regards improvement measures and that an annual Conference be held to review the work done under this scheme also come under this group.

3. The Committee have placed in the forefront of their recommendations the proposal for the establishment of Land Mortgage Banks. The question of a Land Mortgage Bank in the Malnad has been under consideration for a long time. It was considered more than once by the Economic Conference and definite proposals were submitted by the Conference for the formation of a Bank. The question also was considered by the Co-operative Committee appointed by Government in 1920 and detailed proposals regarding such Banks are contained in pages 40 to 42 of the Report of that Committee. The proposals of the present Committee now under consideration have been made after an examination of the whole question *de novo* and proceed more or less on the lines suggested by the Economic Conference and the Co-operative Committee, with the modification that separate Banks are proposed for each district. The present Committee also consider that it is desirable to introduce a Record of Rights, at least in the area coming under the operation of these Banks and to

undertake legislation for the relief of agriculturist debtors. When these proposals were placed before the recent session of the Representative Assembly, it was found that the members of that House were in favour of the establishment of these Banks, and the introduction of the two other measures in connection therewith.

4. Government have carefully considered the questions involved in these proposals, and are of opinion that while provision for long-term credit is very much needed in the Malnad, it is difficult to say whether Land Mortgage Banks of the kind proposed are best suited for providing that credit. Nor is it certain that a Record of Rights and a Debt Relief Act would operate altogether for the benefit of the agricultural population in the Malnad. Land Mortgage Banks are new to India and their working in British Indian Provinces cannot be said to have yet passed the stage of experiment. In view, however, of the fact that successive Committees have proposed the establishment of Banks of this class and that the opinion of the Representative Assembly is in favour of the measures recommended, Government are prepared to give the scheme a trial. They feel, however, that there is need for proceeding cautiously in the matter. They are accordingly pleased to direct that steps be taken to establish three Banks as proposed by the Committee with the modification that each Bank will, for the present, operate over only one taluk. The Shimoga District Bank will have jurisdiction only over the Sagar Taluk, that of Kadur over the Koppa Taluk and that of Hassan over the Saklespur taluk.

6. The Record of Rights will be introduced in the three taluks to which the operations of the District Land Mortgage Banks extend.

7. Government will also take steps to undertake legislation on the lines of the Deccan Agriculturists' Relief Act at the earliest possible opportunity. The operation of this measure will, as in the case of Record of Rights, be confined to the three taluks in which the Land Mortgage Banks carry on their operations. A Bill for this and for other purposes will be immediately prepared and placed, if possible, before the next Dasara Session of the Representative Assembly for the consideration of that House.

8. The Committee propose that for carrying out the measures suggested by them in connection with medical relief and sanitary and other improvements, a special establishment should be appointed. A special staff of the kind proposed was once sanctioned under the old Malnad Improvement Scheme and was abolished only in 1921. Government consider that it is not desirable to revive the arrangement of having a separate establishment for carrying out improvement measures of the kind under reference. These measures all come within the normal activities of one or other department of Government and should be attended to by these departments. Any extra establishment

or funds required for carrying them out should be applied for by the respective departments of Government.

9. The proposal of the Committee regarding the appointment of District Committees to advise on improvement measures amounts to the revival, with some modifications, of the Committees which were previously in existence for the same purpose but were abolished when Malnad Improvement work was added on to the work of the District Boards of the respective districts. Government approve of the proposal to revive District Committees as they would be able to give their entire attention to Malnad improvement matters. The Committee in each district will consist of the Deputy Commissioner as President and President of the District Board, the District Medical Officer, the District Inspector of Education, the District Forest Officer, the District Health Officer, if any, the Executive Engineer and the Sub-Division Officers of the Malnad Sub-divisions together with a few non-official members, of whom 50 per cent may be members of the District Boards, as members. Each Committee will meet twice a year to review progress and prepare suitable programmes and submit them to Government. There is no objection to the Committees in the three districts meeting together once a year for a general survey of the work done in connection with the Malnad Improvement Scheme.

10. On the detailed suggestions of the Committee for the improvement of sanitation, extension of medical relief, facilities for transport, spread of knowledge and redress of forest grievances and the like, Government do not propose to pass orders here. Some of the proposals, as for example, that regarding the Kadur-Chikmagalur Railway, have, independently of the report of the Committee, been already sanctioned. Some others are under active consideration in the respective departments of Government. Each of these suggestions will be taken up separately and orders issued in due course.

11. On one of these recommendations, however, Government wish, in view of the importance of the subject, to indicate their policy. Government are fully in agreement with the Committee in their recommendation regarding the grant of facilities to the members of the Depressed Classes to acquire lands in the Malnad. While Government have no objection to grants being made to individual applicants of these classes they would prefer to have a practicable scheme worked out for dealing with groups of 25 or 30 applicants formed into Co-operative Societies for the acquisition and cultivation of land as also for arranging for the profitable marketing of the produce raised by them. Government are prepared to help these societies with funds in the initial stages and, in view of the difficulty of finding competent men of the community to manage the societies, to give them the services of suitable persons for managing the work of the societies until men of their own class become available to

undertake such work. The Registrar of Co-operative Societies and the Director of Agriculture are requested to consider the matter and submit a joint report to Government within a month from the date of this Order.

13. Government wish to take this opportunity to re-affirm the policy that has been pursued so far in regard to the Malnad. They recognize that the Malnad area, as well as some others similarly constituted, stand in need of special attention. They have under contemplation a health survey of the State and as it is intended that the survey should have special reference to malaria and hookworm disease, it will relate mainly to the Malnad. Government have recently included the Hunsur and Heggaddevankote Taluks of the Mysore District in the area of operation of the Malnad Improvement Scheme. In addition to the usual departmental grants in which the Malnad taluks along with other parts of the State participate, Government will continue to allot a special grant every year for meeting the expenditure involved by measures specially taken up under the Malnad Improvement Scheme. The measures which Government have sanctioned or may sanction can, however, be really successful only with the willing and active co-operation of the people of the Malnad. Government have hopes that such co-operation will be forthcoming.

(vi) G. O. No. G. 2250-2—San. 65-28-6, dated 11th August 1929.

The Malnad Improvement Committees which had been abolished in 1921, as a measure of retrenchment were, on the recommendation of the Special Malnad Improvement Committee of 1925, revived for a period of two years.

2. The period having expired, the Deputy Commissioners of Malnad Districts were asked to furnish their opinion about the continuance or otherwise of the Committees.

3. The whole question of the Malnad Improvement Committees was also considered at the meeting of officers held at Mysore on 16th June 1929. The general trend of opinion was that as the Malnad Improvement Committees were purely advisory bodies with no responsibility for the execution of Improvement works and as the amounts allotted for such works were not so large as to necessitate the continuance of these Committees to administer them, they might be abolished, the grants being made over to the respective District Boards.

4. Government agree with this view and consider that Malnad Improvement Work can be carried on more vigorously if it is entrusted to the District Boards, who may also be able to divert a part of their own funds to supplement the grants given by Government for the purpose. They are accordingly pleased to direct that the scheme of Malnad Improvement Committees sanctioned in the first of the Government Orders read above be abolished and that the available amounts out of the grants

sanctioned during the current year and those to be made in subsequent years be placed at the disposal of the respective District Boards for promoting definite schemes of malnad improvement approved by Government. Each District Board will be requested to appoint, under Section 34 of the District Board Regulation, a Malnad Improvement Committee consisting of the President of the District Board as the Chairman and four members of the District Board as members with the District Economic Superintendent as Secretary. The Committee may under section 32 (2) of the District Board. Regulation co-opt any individual as a member for special purposes. This Committee will consider the needs of the malnad area in the District and send up proposals for the consideration of the District Board as a whole, who will give effect to them with such modifications as they deem fit.

(vii) List of Roads in Shimoga District the opening of which was sanctioned in

G. O. No. 5735-6—San. 87-15-9, dated 6th March 1917.

Group I—Important Roads.

1 Hanagere to Humchakatte.
2 Humcha of Mumbar.
3 Nagar to Sampekatte.
4 Mandagadde to Hanagere.
5 Malur to Konandur.
6 Bekanur to Thudur.
7 Road to connect the Aralgode-Hinninghat road with Jog.
8 A road from a point about midway between Karur and Kogar *via* Shankana-Shanbhog to near Nagodi.

Group II—Roads of general interest.

1 Ambligola to Anantapur.
2 Shikarpur to Masur (the work is reported to be under progress).
3 Channagiri to Santebennur.
4 Channagiri to Bukkambudhi *via* Tavrekere.
5 Gouja to Sagar.
6 Sorab to Chikkarur.
7 Sorab to Chendragutti and Banavasi.
8 Jade to Bommenahalli and on to Tavangi, to connect Sorab-Banavasi road.

Group III—Roads of local interest.

1 Tavangi-Hadadi road.
2 Jaday to Hassur.
3 Kudlegere to Holehonnur.
4 Shikarpur to Chordi.
5 Kumsi to Chinnamane on the Shimoga-Nagar road.
6 Kalmane to Begur.

APPENDIX 17

Recommendations of Chandy Committee.

1. Land Mortgage Banks may be formed for the three malnad districts.

2. A Record of Rights in land may be introduced at least in the malnad.

3. A Regulation for the relief of agricultural indebtedness somewhat on the lines of the Dekhan Agriculturists' Relief Act should be passed.

4. More dispensaries should be provided in the malnad. The idea should be to provide a dispensary not farther than five miles from any place.

5. Medical Officers with higher qualification and more experienced than at present should be posted to taluk and rural dispensaries in the malnad.

6. Rules under the Village Sanitation Regulation should be added to for condemning unhealthy village sites.

7. Wells with good drinking water should be provided in more villages from year to year.

8. Quinine should be distributed to the people to a larger extent than now.

9. More midwives should be employed for the malnad and inducements offered to make them take more interest in their work.

10. Vaccination work should be made more efficient.

11. Villages should be shifted from unhealthy sites and loans given to persons wishing to build houses and help in materials from State and District Forests also given.

12. Arrangements should be made for propaganda in health and sanitation matters.

13. Arragements should be made for reasearch in malnad diseases.

14. Survey and relief parties should be sent out for surveying the condition of villages and giving all possible help on the spot.

15. The number of primary and middle schools should be increased, the middle schools being in as many cases as possible of the residential type.

16. The curricula of studies in the schools should be made more vocational.

17. More industrial schools should be opened.

18. The railway line between Kadur and Chikmagalur may be constructed early.

19. Motor transport may be encouraged by regulating competition.

20. Maintenance allotments for malnad roads may be increased.

21. List should be made of roads required in the interior particularly the ghat roads which will give an outlet to West Coast for the products of the interior of the malnad.

22. Deputy Commissioners may investigate cases in which further grazing facilities have to be provided to villages or State Forests too close to villages have to be released. In cases where the Revenue and Forest Departments agree the facilities recommended by the Deputy Commissioner may be given, as a matter of course. Cases of disagreement may be required to be submited for orders to Government.

23. Game preserves should not be too close to villages.

24. Gun licenses may be more freely issued to malnad raiyats.

25. The rules regarding the pursuit of wild beasts found damaging crops may be made more favourable to the raiyats.

26. Facilities may be given to settlers by the grant of land free of assessment and of suitable monetary help.

27. Special attention should be paid to tanks in the Shimoga malnad.

28. The Irrigation Cess levied in the malnad districts should be used in the particular districts.

29. The practice of trenches being dug to protect paddy flats and arecanut gardens may be allowed to continue under certain conditions.

30 People may be helped where they are willing to regulate the use of *soppinbettas*.

31. The restriction against growing cardamom on the eastern slope of the ghats may be removed.

32. The Department of Industries may be asked to investigate how our cardamom growers can be helped to get better prices.

33. The 25 yard rule may be abolished providing, however, for the protection of spring heads.

34. Small areas of *kan* lands of two acres in each case may be given for cultivation.

35. An agricultural school of the type of the Chiknahalli School may be established at some central place in the malnad.

36. A seed depot and a nursery may be opened at one place in the Shimoga District and in one place for Hassan and Kadur Districts for selling seeds and plants at cost price.

37. The tree-tax system may be abolished in the Bagani area.

38. Special facilities should be provided for giving lands to the depressed classes in the malnad.

39. The Boarding School for these classes at Chikmagalur should be expanded and another like the Central Institute at Mysore established in some other place in the Malnad.

40. Additional establishment consisting of 12 Sanitary Inspectors for the malnad areas and of an Assistant Engineer with suitable establishment working under him for each district may be employed for carrying out the work under the scheme.

41. A Committee may be formed for each diatrict for advising in regard to the operations under the scheme.

42. A Conference may be held each year for reviewing work under the scheme and making suggestions to Government.

APPENDIX 18

Recommendations of Rajagopalachari Committee.

1. The Land Mortgage Bank Scheme should be extended to all the Malnad Taluks as early as possible.

2. A change in the policy of the Land Mortgage Bank not giving short term loans to the members who have taken long term loans is very desirable, especially at the present juncture, in view of the urgent need for short term loans.

3. The remaining Malnad Taluks should be taken up for Record of Rights Work as early as possible.

4. The Agriculturists' Relief Regulation should be extended to all the other Malnad Taluks, and its scope widened by raising the gross income limit of Rs. 1,000 to Rs. 2,000.

5. The possibility of starting Co-operative Sale Societies in the Malnad for its commercial produce. particularly for areca, with godown facilities should be immediately investigated.

6. In view of the competition in the existing restricted market for the Malnad areca, new markets should be found for it.

7. All possible assistance in financing the Malnad areca cultivation should be given. Co-operative Societies should be formed in areca-growing areas, for both credit and sales. To start with, three Societies, one at Thirthahalli, one at Koppa and another at Sagar, may be established at an early date.

8. Methods should be devised by the Agricultural department for simplifing the process of curing areca.

9. The coffee planters may be advised to send their coffee to London in communication with the Trade Commissioner for Mysore, there.

10. For improving coffee sales, a Co-operative Organisation, combining both of financing and selling of coffee may be started.

11. The cardamom growers should be advised to improve the output, with care and proper cultivation and to form themselves into an Association, on the lines of the Travancore Cardamom Growers' Association.

12. To improve the labour supply, the employers should give the labourers better wages and attractive conditions.

13. The Malnad interior should be opened up by more railways and roads. The further railway extension should be taken up as early as possible when financial conditions improve. For roads, particularly those down the Ghats leading to the West Coast, larger allotments of funds should be provided.

14. Cottage Industries, especially of hand-spinning and hand-weaving of cloth should be encouraged and small industries organised.

15. The claims of the Malnad in regard to Primary and Middle School Education, Medical Relief and Sanitation should be given specially liberal treatment.

16. The question of constituting a permanent Committee with a Bureau of Statistics and Commercial Information in charge of a responsible Officer should be examined.

APPENDIX 19.

Extracts from Note dated 27th August 1919 of Mushir-ul-Mulk Mir Hamza Hussain, Member of Council.

9. Considering the vast extent of territory to be dealt with and the large population, the amelioration of whose condition is the object in view, the results so far achieved are satisfactory, but much more remains to be done. The demand is insistent for more roads, more railway communications, more Dispensaries for occupations for the unemployed and for measures for relieving indebtedness.

Suggestions have been made for the creation of large landed estates in the Malnad, for the extension to local land-less Halepaikas and Panchamas of the concessions offered to intending settlers from outside, for bringing the restoration of minor tanks within the purview of the Malnad Improvement Scheme, for the removal of the restrictions on the tapping and consumption of Bagani toddy, etc.

A desire for improving the existing organization has also been expressed in some quarters and it is felt that greater co-ordination of effort of the Malnad Improvement Committees and the Departments concerned is necessary. A larger infusion of the non-official element in the Central Committee has been proposed and the formation of Special Malnad Improvement Committees for every Malnad Taluk has also been suggested.

10. In their Order of 22nd May 1918, Government have sanctioned an annual allotment of Rs. 2 lakhs for a further period of 5 years for the Malnad Improvement Scheme. The question for consideration is how these funds can be utilised to the best advantage and what improvements should be introduced in the organization and working of the Scheme.

11. The areas brought under the operations of the Malnad Improvement Scheme are the well-known Malnad tracts of the Shimoga, Kadur and Hassan Districts to which are added certain Hoblies of the Semi-Malnad Taluks. These Malnad tracts do not form a compact area and are in no way alike as regards physical features, homogeneity of population and economic conditions. These parts can be roughly divided into two zones, the Coffee Zone and the Areca-nut Zone. The entire Taluk of Saklespur parts of Belur Taluk, parts of Mudigere, the upper slopes of the Bababudans in the Chikmagalur Taluk come within the former zone. The Koppa, Tirthahalli, Nagar, Sagar and Sorab Taluks come within the latter zone. There is a shade of difference between the Taluks of Sagar and Sorab and the other Taluks in this zone, but this may be overlooked. Coffee is grown in parts of Koppa and Narasimharajapura Taluks, but not to any large extent and the industry is not taken up by the local people. Area under operation.

The inhabitants of what I call the Coffee Zone are fair-looking, strong, well-built and robust in health and the tract is generally free from malaria except in low-lying valleys. The economic condition of the people too is not bad. The Indian coffee planter is no doubt involved in debts, but not to any large extent. With a little thrift and co-operation, he can earn a decent living from his estate. The condition of labour too is not bad. Coffee estates afford employment to a large number of indigenous coolies in all seasons of the year and in the picking season, labour has to be imported from the West Coast. The inhabitants of the Areca nut Zone present a marked contrast to these people. There, the raiyat population is short in stature and sickly in appearance and presents a famished look. Paddy fields and areca nut gardens are the only sources of employment and the conditions of labour are not conducive to a vigorous and healthy growth. These characteristics should be borne in mind in framing any scheme for the improvement of the Malnad.

Organisation of the Central Committee.

12. The constitution of the Central Committee requires a radical change. At present the senior Deputy Commissioner for the time being in any of the three districts becomes the President of the Central Committee, and as matters stand now, the Deputy Commissioner of Hassan is the senior Deputy Commissioner in Malnad tract and his Secretary is stationed at Shimoga. The Deputy Commissioner of the Hassan District can have no adequate idea of the Koppa and the Tirthahalli Malnads and similarly the Deputy Commissioner of Shimoga will not be competent to deal with the Malnad conditions of Saklespur and the Bababudan Hills. The President of the Central Committee who has to co ordinate the work of the District Committees and guide their deliberations should naturally be a person who has a thorough knowledge of the conditions prevailing in all the tracts. He should be a Provincial Officer and failing him, a Member of Government. On the Central Committee will have to sit the Senior Surgeon, the Sanitary Commissioner and I would also include the Revenue Commissioner, the Chief Engineer, the Director of Industries and the Conservator of Forests. The President of the Central Committee must be an officer of equal if not of a higher grade. I would suggest a Member of Government to be the President. One of the Assistant Secretaries to Government may be the Secretary to the Committee. The Committee may meet once in three months in some Malnad place in each Malnad District by turns. Besides the official members mentioned above, I would suggest a non-official representative on the Committee from each of the Districts. The composition of the Central Board will thus be as follows :—

President.—A Member of Government.

Members.—1-3 The Deputy Commissioners of the Districts of Hassan, Kadur and Shimoga.
4. The Senior Surgeon.
5. The Sanitary Commissioner.
6. The Conservator of Forests.
7. The Chief Engineer.
8. The Director of Industries.
9.-11. Three non-official representatives.
12. The Special Forest Officer.

The necessity for the Sanitary Commissioner and the Senior Surgeon being on the Committee is obvious, since sanitation and medical relief figure prominently on the programme of Malnad Improvements. As the formation of village forests as a part of the Malnad scheme is necessary and as questions regarding Forest conservation and settlement in the Malnad arise, the presence of the Conservator of Forests is equally necessary. The Chief Engineer is needed for the opening up of communications in the Malnad and the Director of Industries and the Special Forest officer for the development of the Malnad Industries.

13. The District Committees may continue as at present with the Deputy Commissioner as the Chairman and may consist of the following members :— District Committees.

1 to 3. The Sub-Division Officers of Revenue Sub-Divisions.
4. The District Sanitary Officer.
5. The District Medical officer.
6. The Executive Engineer.
7. The Secretary to the District Board in Economic matters.
8. The District Forest Officer, and Non-official representatives—one from each of the Malnad Taluks, the Personal Assistant to the Deputy Commissioner being the Secretary.

It may be urged that, when there is a District Board to look after the local interests of the District generally and a Taluk Board to look after the special interests of the Taluk, especially when under the scheme of Local Self-Government recently promulgated, these Boards can also do the work of economic development, there is no necessity for a separate District Committee for the Malnad Improvement and it is sufficient if the Government make allotments to these Boards out of the Malnad Improvement funds to supplement the resources of the several Boards. But these Boards cannot devote their undivided attention to the Malnad Improvement as within their respective areas there are Maidan Taluks also. Besides a

statutory body is bound by rules and formalities which cannot very well be observed when extraordinary remedies are demanded to meet special situations. The Central Committee has to exercise controlling powers which it cannot very well do over a statutory body. I would therefore continue the present Central and District Committees with their constitution altered as indicated above.

Agency.

14. When the scheme was sanctioned, a separate agency was organised to carry out the Malnad Improvement work. It has no doubt done some appreciable amount of work at an enormous cost. But it had the effect also of alienating the sympathy of the ordinary Revenue Agency which under our system of administration is accustomed to do all the improvement work whether it be in the matter of public health or of improving the material well being and prosperity of the people. The Amildar stood aloof as also the Sub Division Officer. Recent changes made in abolishing the post of Special Revenue Officer and entrusting the task to the Sub-Division Officers are, I think, in the right direction. There is no need also for a separate clerical establishment. The ordinary establishment of the Sub-Division Officers should be able to cope with the work especially when it is relieved of a lot of Local Fund and Municipal work it was doing before the present Local Boards and Municipal Regulations came into force. In the Shimoga District, the Judicial Clerk who has been set free by the separation of Judicial and Executive functions can be easily employed on this work. Under the recent Sanitary Re-organization Scheme, each Taluk will have a Sanitary Inspector and his services can very well be utilised by the Malnad Improvement Committees. The special establishment of Overseers and Sub-Overseers may continue and they should be employed in areas where large works are going on. Under the scheme for improving the water supply of villages, provision has been made for the employment of a staff to supervise the construction of wells. This agency may also be utilised. As the work of economic development and sanitary improvements comes within the scope of the ordinary duties of the Revenue and the Sanitary Officers, they are not entitled to any special allowance and the allowances hitherto given to them out of the Malnad Improvement funds should be discontinued.

The Amildar should be held responsible for the improvements in his taluk. He may also be assisted by a special committee appointed for the purpose. As recommended by Mr. Matthan, a Public Works Officer of the rank of an Assistant Engineer may be given to each of the District Boards and his pay may be borne by the District Boards and the Malnad Improvement Funds in the proportion of 2 to 1.

Future Programme.

15. As regards the programme of future work, much has been achieved in the matter of sanitation and medical relief and

much more remains to be done. In spite of the elaborate instructions laid down no systematic work on a regular plan has been done. The efforts hitherto made have been too diffuse and desultory to produce any tangible results. The medical and sanitary requirements of a great portion of the tract have not been studied, and no laboratory experiments have been made to identify the special breed of mosquitoes that spread Malaria or to discover the parasites of diseases peculiar to the Malnad. No systematic Disease Survey has taken place. The registration of vital statistics is as defective as before and no attempt has been made to solve the problems so clearly set out in paragraph 11 of the Government Order of 24th February 1914. Wells have been sunk in several places but without due regard to the needs of the places and some of them have already run dry. Maternities and Dispensaries have not been opened in several places and the supply of Midwives is quite insufficient to meet the demand.

The first thing that has to be done is to prepare a list of notoriously unhealthy places and concentrate all our attention and energy towards their improvement, taking as many of them for sanitary improvement and medical relief at a time as funds permit. Large areas are shown as having been cleared of lantana both by private people and Government agency, which I was not able to verify in my tour. No systematic plan has been laid down for the destruction of the same. A practical and workable scheme should be framed and vigorously carried out.

Roads and Communications.

16. *Economic Development.*—The urgent need of the Malnad of the Arecanut Zone is its economic development. But to secure this object, it is essential that the roads and communications in the Malnad should appreciably increase and inaccesible places should be opened out. There are, as the Economic Superintendant of the Kadur District told me, some *terra incognita* or no man's lands in the Taluk of Chikmagalur and, as reported by Mr. Matthan, the Shimoga District is very backward in the matter of communications. In their Order of 6th March 1917, Government have sanctioned the construction of 8 important roads in the Shimoga District at Government cost. But only two out of these have been actually constructed, and no provision has been made in the current year's budget for the construction of the other roads. The Tramway Lines from Benkipur will open up only a small part of Shimoga and Narasimharajapura Taluks and will not be of much use to the greater part of the Shimoga District. The programme of work outlined in the Government Order referred to above should be speedily carried out by the Public Works Department. As regards the Local Fund Roads, they may be constructed under the supervision of the Engineers proposed to be appointed under the District Boards.

Settlements

17. The formation of new settlements has also been undertaken by the Malnad Improvement Committees. It is

reported that over 400 families have been settled and 1,698 acres of land given to them for cultivation. I inspected the settlements at Sangamesvarpet and Ginagadde in the Kadur District and from enquiries made they appear to be a success so far. No case of desertion was brought to notice and recoveries of advances made have been satisfactory. But the people that have settled are mostly foreigners and little or no encouragement has been given to the local land-less classes. The question is a difficult one as it will unsettle labour conditions in the Malnad and will have to be worked out with care.

Malnad indebtedness.

18. There is no doubt that the average ryot in the Areca-nut Zone is over head and ears in debt and so is his brother the coffee planter in the coffee Zone. The former is bound hand and foot to the Brahmin sowcar who deals in areca-nut and the latter to the Marvari. When the *halat* was abolished, it was fondly hoped that the areca-nut grower would free himself from the bondage of the sowcar and that the Agricultural Banks started for the benefit of the coffee planter would prove his salvation. But these hopes have not been realised. The areca-nut gardens and coffee estates are fettered by mortgages and hypothecation and the owners are dependent upon the money-lenders for working expenses which are advanced to them at usurious rates of interest. In spite of the rise in prices of areca-nut and coffee, the landowner is hardly able to eke out his livelihood. He is ill-clothed and starved and is hardly able to bear the inclemencies of the weather. Added to this, the change in his habits, the discarding of the old *kambli* and his partiality to arrack and brandy in place of the wholesome drinks of *Akki Bhoja* and *Bagani* toddy have completed his ruin. Co-operative Societies are the only means of relieving his indebtedness. A scheme of Land Mortgage Banks has been advocated by many prominent men in the Malnad, but the type of the bank proposed is one financed entirely by the Government. This will be another kind of agricultural bank in the successful working of which the members will have little or no interest. The coffee estates have at least a market value on account of competition by foreigners. But areca-nut gardens have no market value at all. I say this from my experience as a Munsiff, Sub-Judge and District Judge in the Malnad. Areca-nut gardens put up for sale in court auctions used to fetch hardly any price on account of the paucity of bidders. It is out of the question that such banks should be started in the Malnad. The only other way besides the co-operative societies is to advance money to the areca-nut growers upon the security of the crops. This system worked well last year as regards coffee estates and the advances given to the coffee planters have been almost fully recovered.

Labour.

19. Labour difficulty in the areca-nut Malnad is greatly felt chiefly bacause the local labour classes, the Holeyas, have

become, as a European Planter of longstanding told me, practically extinct owing to the apathy and indifference of the landed classes. The Holeyar population has been ill-fed, ill-clothed and ill-housed and has become a prey to the Malnad diseases. The areca-nut grower is dependent upon the West Coast labourer for the cultivation of his gardens and paddy fields. A scheme for the employment of labour has been recently sanctioned by the Government and the successful working of it depends upon the business capacity and enterprise of the areca-nut garden owners.

Forests.

20. My tour in the Malnad has convinced me of the necessity of establishing village forests both in the interests of the raiyats and conservation of the valuable forests. The indiscriminate exploiting of the forests by the Malnad raiyat for the sake of *soppu* (green manure), timber, etc., should be put a stop to. It should be the special object of the Malnad Improvement Committees to carry out the scheme of village forests and see that it is made a success.

There are now a few plantations of rubber in the Hassan and Kadur Districts. In view of the growing demand for this commodity, the question of expanding its cultivation, for which there is considerable scope in the Malnad, requires special attention. The cultivation of tea and cinchona should also be encouraged. The question of popularising fruit cultivation on the Bababudan Hills also requires consideration.

Industies.

21. There are hardly any industries worth the name in the Areca-nut Zone of the Malnad. The problem how to employ the abundant forest material for the establishment of industries is the work of a specialist which will bear fruit after years of toil and experiment. The Iron Works will open up a great part of the Malnad but what is wanted is a subsidiary occupation to the raiyat during the rainy season to prevent him from indulging in drinks. Up till now, no industry suitable to his tastes is suggested and none of course is followed. The hope expressed by the Government in their Order No 6561-3—San. 72-17-2, dated 22nd May 1918, that the Malnad people should invest half of the capital outlay estimated therein for the improvement of the Malnad in productive works is at best a dream and will take a long time for its realization.

Admistrative changes.

22. The clubbing together of different hamlets in the pure Malnad parts and constituting them into a Village hampers progress in all directions. These hamlets are so far apart from one another that effective supervision is impossible. It is extremely difficult to form Village Committees for the improvement of the villages and the registration of births and deaths to some degree of accuracy is well nigh impossible. It came to my notice in my tour that this part of the Malnad suffered very badly from influenza and yet the returns show that the Kadur District suffered the least from this epidemic. It seems to me

that each hamlet should be constituted into a village with a separate patel at the head. This will remove not only the evils mentioned above but facilitate also the establishment of village forests.

In view of the formation of the taluks of Narasimharajapura and Balehonnur, a separate Revenue Sub-Division will have to be constituted with jurisdiction over these two taluks and the taluk of Koppa, with headquarters at Koppa or Narasimharajapura. It is also necessary to establish a Special Magistrate's Court at one of these two places. If a Sub-Division is constituted as stated above, then Kadur and Tarikere will form another revenue division. Having regard to the fact that the Koppa and Narasimharajapura Malnad is akin to the Shimoga Malnad and is more easily accessible to the latter place than to Chikmagalur, it strikes one at first sight that the two Taluks will be better administered if they are included in the Shimoga District, but this will involve a change in the constitution of other Districts and I am not therefore prepared to recommend the measure.

APPENDIX 20.

The Malnad Development Act.

AN ACT FOR THE DEVELOPMENT OF THE MALNAD.

Whereas it is expedient to make provision for arresting the decline of population in the Malnad, and for the development of that area and the better utilisation of its natural resources, and for the appointment of a Malnad Development Board with special powers to carry out the aforesaid purposes, it is hereby enacted as follows :—

CHAPTER I.

PRELIMINARY.

1. (1) This Act may be called the Malnad Development Act, ...

(2) Except as is hereinafter otherwise provided, it extends to the Malnad.

(3) It shall come into force on such date as the Government may, by notification in the official gazette, appoint.

2. In this Act, unless there is something repugnant in the subject or context—

"Malnad" means and comprises the undermentioned revenue taluks of the State:—

"Sorab, Shikarpur, Sagar, Kumsi, Shimoga, Hosanagar, Thirthahalli, Koppa (including Sringeri Jaghir), Narasimharajapura, Tarikere, Chickmagalur, Mudigere, Belur, Manjarabad and Alur."

"Prescribed" means prescribed by rules made under the Act.

CHAPTER II.

MALNAD IMPROVEMENT BOARD.

3. The duty of carrying out the provisions of this Act, shall, subject to such conditions and limitations as are hereinafter contained, be vested in a Board to be called "Malnad Development Board" (hereinafter referred to as the Board) and such Board shall be a body corporate and have perpetual succession and a common seal and shall sue and be sued by the name first aforesaid.

4. The Board shall consist of four members as follows :—

The Chairman of the Board shall be a person appointed by His Highness the Maharaja, and three members shall be elected in the manner indicated in the first schedule appended to this Act.

5. The names of the Chairman and the other members of the Board shall be notified in the official gazette.

6. (1) The Chairman of the Board shall hold office during the pleasure of His Highness the Maharaja.

(2) The other members shall hold office for one year from the date on which their names are notified in the official gazette under the last foregoing section or until the election of their successors is notified in the gazette, whichever is later.

7. (1) Any casual vacancy in the office of a member other than the Chairman shall be filled up within one month of the occurrence of the vacancy in the manner indicated in the first schedule.

8. The following provisions shall be observed with respect to the proceedings of the Board, namely—

(1) During the vacancy in the Board, the continuing members may act as if no vacancy had occurred.

(2) The Board shall meet together and shall, from time to time, make such arrangements, not inconsistent with this Act, with respect to the place, day, hour, notice, management and adjournment of such meetings, and generally with respect to the transaction of business, as it thinks fit, subject to the following provisions, namely :—

(*a*) An ordinary meeting shall be held once at least in every month ;

(*b*) No business shall be transacted at any meeting unless the Chairman and two other members are present from the beginning to the end of such meeting ;

(*c*) Every meeting shall be presided over by the Chairman ;

(*d*) All questions shall be decided by a majority of votes of the members present, the Chairman having a second or casting vote in all cases of equality of votes ;

(*e*) Minutes shall be kept of the names of the members present and of the proceedings at each meeting in a book to be provided for this purpose, which shall be read and signed at the next ensuing meeting by the Chairman of such meeting, and shall be open to inspection by any member during office hours.

(3) The Board may, from time to time, appoint committees consisting of the Chairman and a member and such others as it thinks fit ; and may

(*a*) refer to such committees for enquiry and report any subject relating to the purposes of this Act, or

(*b*) delegate to such committees by a specific resolution in this behalf, and subject to any bye-laws made by the Board, any of its powers or duties.

(4) Any committee so appointed shall conform to any instructions that may, from time to time, be given to it by the Board and the Board may, at any time, alter the constitution of any committee so appointed or rescind any such appointment. The Chairman shall be the President of every such committee.

(5) No act of the Board, or of any committee, or of any person acting as member, shall be deemed to be invalid by reason only of some defect in the appointment of such Board, committee or member, or on the ground that it or any of its members was disqualified for the office of member.

9. The Chairman shall be the sole executive authority of the Board and may, on behalf of the Board, enter into any contract or agreement for giving effect to the resolutions of the Board and the activities.

10. The Board may compound or compromise for or in respect of any claim or demand arising out of any contract entered into by it under this Act, or in respect of any action or suit instituted by or against it, for such sum of money or other compensation as it shall deem sufficient.

CHAPTER III.

Duties and Powers.

11. (1) The Board shall, as soon as may be, after it shall have been constituted under this Act, proceed to implement and execute any of the items referred to in the second schedule, for arresting the decline of population in the malnad, for the improvement of that area, for the better utilisation of its natural resources and for other matters incidental or ancillary thereto on the basis of and with due regard to the orders passed or that may be hereafter passed by the Government;

(2) The Board may also from time to time make any new or additional schemes on its own initiative or otherwise.

12. A scheme under section 11 (2) may provide for any or all of the following matters :—

(i) Improved facilities for public health, medical relief, sanitation and water supply, etc.;

(ii) Improvement of communications, roads, bridges and railways;

(iii) Development of education, development of industries including cottage industries and industrial education;

(iv) Development of agriculture, agricultural marketing, agricultural education;

(v) Exploitation of natural resources such as minerals, forests, etc.;

(iv) Development of irrigation, power, construction and improvement of tanks, reservoirs, etc.;

(vii) Improvement of livestock:

(viii) Formation of co-operative societies for the economic betterment of the malnad, relief of indebtedness, rural finance, etc., and

(ix) Such other measures as are calcutated to improve and develop the malnad.

13. (1) Where any scheme under section 11 (1) can be executed within the funds at the disposal of the Board, the scheme shall be communicated to the Government and the Board shall forthwith proceed to execute the scheme;

(2) Where any such scheme requires funds not already at the disposal of the Board, it shall be sent to the Government for sanction and allotment of funds, and shall be executed after receipt of such sanction:

All schemes falling under section 11 (2) shall be similarly sent to Government for sanction and shall be executed only after receipt of such sanction.

(3) After the completion of any scheme or item included in it, and if the Board considers it desirable to transfer to any local body or any department of Government such items for future maintenance and administration, the Board shall address Government accordingly and the Government may entrust that item to the local body or department who shall thereafter be responsible for the maintenance or administration of such item.

CHAPTER IV.

Economic Provisions.

14. (1) Notwithstanding any rule or law or enactment to the contrary, any transfer of agricultural land situated within the malnad by an agriculturist shall be absolutely null and void unless made in favour of another agriculturist or with the previous consent in writing of a prescribed authority:

(2) Where transfer of property is made in contravention of sub-section (1), the prescribed authority may, on application by any one interested, decree ejectment against any person in possession of the property claiming under the transfer and may restore it to the transferor or his heirs;

(3) In any execution of a money decree against an agriculturist, no immovable property owned by him within the malnad shall be liable to be attached or sold except as and to the extent prescribed.

Explanation.—For the purpose of this section, 'agriculturist' shall carry the same meaning as in the Mysore Agriculturists' Relief Act, 1928.

15. Every usufructuary mortgage in existence on the date of coming into force of this Act shall become extinct on the expiry of 30 years from the date on which the mortgage was entered into and the mortgagee shall be bound to deliver possession of the mortgaged property together with the documents, if any, evidencing the mortgage to the mortgagor or his heirs and shall thereafter have no interest or right whatsoever in such property.

16. (1) After the commencement of this Act, every mortgage of agricultural land shall be made only in one of the following forms, *viz.*,

(*a*) A usufructuary mortgage for which a mortgagor delivers proprietory possession of the land to the mortgagee and authorises him to retain such possession and to receive rents and profits of the land in lieu of interest and towards payment of the principal on the condition that after the expiry of such term not exceeding thirty years, as may be agreed upon, the land shall be re-delivered to the mortgagor;

(*b*) A mortgage without possession subject to the condition that, if the mortgagor fails to pay principal and interest according to contract, the mortgagee may apply to the prescribed authority to place him in possession of the land;

(*c*) Where a mortgagee makes an application under clause (*b*) of sub-section 1, the Court may put him in possession of the land for such term not exceeding thirty years as it may, in the circumstances of the case, consider to be equitable, and the mortgage from the date of such possession shall be deemed to be a usufructuary mortgage made under clause (*a*) of sub-section 1 for the term allowed by the authority.

(2) Where in a usufructuary mortgage made after the commencement of this Act, no term or a term exceeding thirty years is agreed upon, such mortgage shall be deemed to be a usufructuary mortgage made under clause (*a*) of sub-section (1) for a term of thirty years.

17. If a mortgagee holding possession under a mortgage made after the commencement of this Act by an Agriculturist remains in possession after the expiry of the period for which he is entitled to hold and on the expiry of which he is bound to deliver back the mortgaged property without any payment by the mortgagor, the prescribed officer shall on the application of the person entitled to possession, direct that the mortgage be redeemed, eject such mortgagee and place the person so entitled in possession; and he may also direct the mortgagee to pay such compensation to the person found to have been wrongly kept out of possession as it may deem reasonable.

CHAPTER V.

Property and Finance.

18. The Government may, from time to time, for purposes of this Act and subject to such limitations and conditions as it may impose and to the provisions hereinafter contained, transfer to and vest in the Board any land belonging to Government or any local body;

Provided that any such land not already conveyed or agreed to be conveyed by the Board which shall be

required by the Government or the local body for a public purpose may, at any time, be resumed by the Government or local body with the previous sanction of Government, as the case may be, on such terms, if any, as Government may determine.

19. The Malnad Development Fund shall consist of the following :—

(1) Initial grant of two crores of rupees to be made by Government for development purposes;

(2) Sums assigned by Government for expenditure as the malnad share of the general plans of development;

(3) Other sums which may be placed by Government at the disposal of the Board from time to time for the purposes of this Act;

(4) Income from the Board's properties and the receipts of the Board realised from its activities;

(5) Contributions from municipal and other local bodies; and

(6) Private contributions.

20. The said Fund shall be held by the Board in trust and shall be applied by it, subject to general or special orders of Government in payment of the charges incidental to the carrying out of the provisions of this Act.

21. (1) The Chairman shall, at the special meeting to be held not later than the 1st April of each year, lay before the Board the estimates of the income and expenditure of the Board for the year commencing on the first day of July;

(2) Such estimate shall make provision for the efficient administration of this Act and shall be completed and a copy thereof sent by post or otherwise to each member at least ten clear days prior to the meeting before which the estimate is to be laid.

22. The Board shall consider the estimate so submitted to it and shall sanction the same either unaltered or with such alterations as it shall think fit.

23. The Chairman shall furnish a copy of the abstract of the estimate to every member of the State Legislature resident in the area and referred to in schedule one of the Act.

24. The Board may at any time during the year for which any such estimate has been sanctioned, cause a supplementary estimate to be prepared and submitted to it. Every such supplementary estimate shall be considered and sanctioned by the Board and a copy of the estimate so sanctioned shall be sent to every member of the State Legislature in the same manner as if it were an original annual estimate.

25. The accounts and receipts and expenditure of the Board shall be audited and examined by the Comptroller and shall twice in every year be laid before the conference of all members of the State Legislature referred to in schedule one together with a report of the Board's activities and then submitted to Government with a copy of the proceedings of that conference.

CHAPTER VI.

26. The Board shall employ such experts and staff as it may find necessary for carrying out the purposes of the Act.

(1) All appointments to the staff shall be made by the Chairman ;

(2) Whenever any expert is appointed under a special contract and the person so appointed is not already in the service of Government, the terms of the contract shall be settled with the prior sanction of the Board ;

(3) Officers in Government service lent to the Board shall, except as otherwise provided under rules or orders which may be made by order of the Board from time to time, be subject to the provisions in this behalf contained in the Mysore Service Regulations.

CHAPTER VII.

28. Government may, from time to time, make rules not inconsistent with this Act, to carry out all or any of the purposes of this Act.

SCHEDULE I.

(*Sections* 4 *and* 7).

1. There shall be three constituencies—one for each of the districts of Hassan, Shimoga and Kadur and one member shall be elected from each of these constituencies to the Board.

2. The members of the Representative Assembly and the Legislative Council resident in the malnad taluks of each district shall be entitled to vote at any election.

3. Every member entitled to vote under the preceding section shall be eligible to stand for election to the Board from his constituency.

4. At any election the candidate obtaining the highest number of votes shall be declared elected to the Board.

5. The manner of conducting the elections, the notice to be given of such election and other matters relating to the elections shall be prescribed by rules to be framed in this behalf.

6. Any casual vacancy occurring in the Board shall be filled up by election from the constituency in accordance with the rules applicable to the principal election.

SCHEDULE II.

(*Section* 11).

1. Establishment of colonies from among ex-service men.
2. Opening centres for Cottage and Rural Industries.

3. Improvement of existing industrial schools and opening of new schools.

4. Organising the handloom weavers.

5. Development of Khadi Industry.

6. Intensive research, local investigation and propaganda in regard to large scale industries.

7. Establishment of Cardamom Bleaching Factory in Hassan District.

8. Institution of scholarships for the malnad students studying in the Occupational Institute at Bangalore or Shimoga.

9. Opening smithy and carpentry classes at all Taluk Headquarters.

10. Provision of hostels in industrial schools at District Headquarters.

11. Grant of scholarships at enhanced rates to students from Depressed classes in the Malnad.

12. Construction of bridges across rivers and minor streams.

13. Formation of new roads.

(1) Four hundred miles of village roads;

(2) Two hundred and ten miles of minor district roads.

14. Metalling the unmetalled main roads to make them all weather roads.

15. Provision of bridle tracks and foot bridges to connect all interior villages to the nearest road.

16. Provision of increased facilities for motor transport in the interior areas.

17. Extension of electricity to every taluk in the Malnad and to centres like Agumbe, Hariharpur, Sringeri, Kalasa, Hanabal and Yeslur.

18. Intensive survey for minerals and devising methods for commercial utilisation of low grade ores.

19. Intensive survey of possibilities of dams in the upper reaches of the several rivers, *viz.*, Sharavati, Varada, Bhadra, Hemavati, Yegachi and streams and construction of multi-purpose dams.

20. Restoration of Minor Tanks.

21. Agricultural Farms—one for each malnad district.

22. Starting of—

(i) Experimental Farms for areca and other subsidiary crops;

(ii) A farm in each district for orange and other fruit cultivation and research and for the cultivation of spice crops such as nutmeg, pepper, clove, vanilla.

23. Starting of demonstration farms.

24. Starting of Kannada Agricultural Schools.

25. Cultivation of essential oil plants.

26. Establishment of an Areca Board and a Cardamom Board.

27. Establishment of three agricultural colonies for Malnad students passing out of agricultural schools.

28. Special measures for the transport and marketing of fruit and vegetables.

29. Opening of Rural Veterinary Dispensaries.

30. Live-stock Improvement Schemes including Cattle Breeding Stations.

31. Development of bee-keeping.

32. Poultry farming.

33. Establishment of dairies.

34. Research in preservation of milk and dairy products, Poultry produce and in refrigeration.

35. Research to improve the nutritive value of the fodder and steps to introduce new varieties of fodder crops and grass suitable for the malnad.

36. Supply of concentrated feeds, and grant of subvention to encourage stall feeding of cattle.

37. Intense rehabilitation of forests all over the malnad.

38. Increase of Eucalyptus plantations and distillation of oil therefrom.

39. Propagation of cane and developing industries in cane.

40. Encouragement to grow cinchona by private persons.

41. Encouragement of factories in the interior for development of industries out of the forest produce.

42. Extension of cashewnut cultivation.

43. Pisciculture in large reservoirs like Hirebhasgar, Anjanapur.

44. Marketing societies for commercial products in the existing centres of trade and district wholesale societies.

45. Organisation of multi-purpose societies.

46. A cardamom society for financing cardamom growers and for improving grading and marketing.

47. Development of Primary Education.

48. Development of Middle School Education.

49. Training of Teachers for High and Middle Schools—One Middle School Teacher Training Centre to be located in the malnad.

50. Provision of hostels in taluk headquarters and other important centres.

51. Provision of mobile vans to malnad hospitals.

52. Provision of inpatient wards in dispensaries.

53. Appointment of a woman doctor to each taluk.

54. Appointment of a midwife for each hobli and for each big village.

55. Provision of a ward of six beds for women with a labour ward in each taluk headquarte

56. Training of midwives.

57. Formation of integrated health units with additional dispensaries and staff of doctors, midwives, sanitary inspectors, vaccinators and fieldmen.

58. Intensive research and framing balanced diets from local products.

59. Continuous research into the nutritive value of local agricultural and forest products.

60. Provision of demonstration kitchens of balanced diet.

61. Cultivating mulberry and establishing silk industry as a cottage industry in the malnad.

62. Grant of facilities to the officers and officials employed in the malnad.